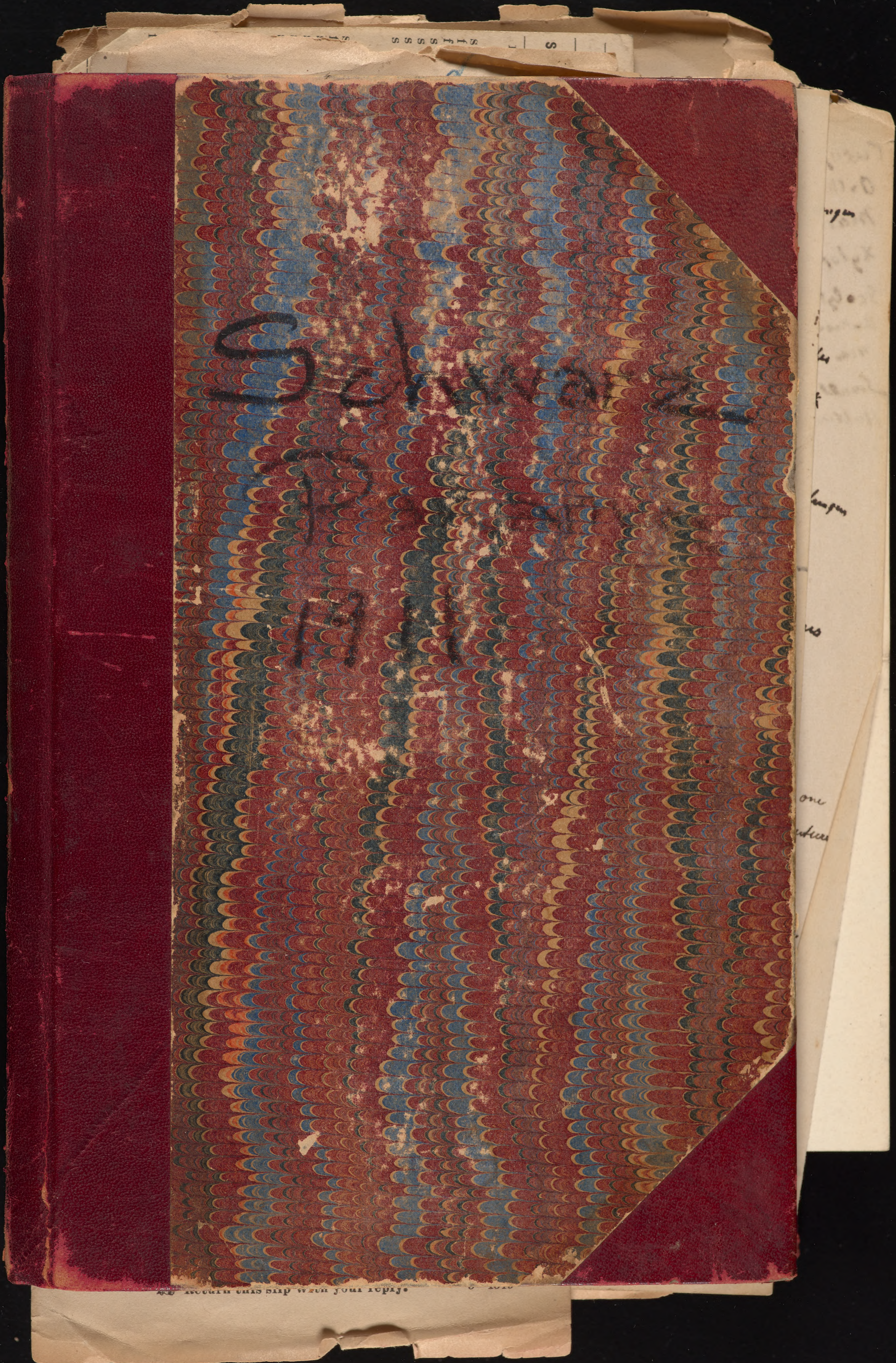


SIA2010-1157-58

USDA Memorandum of Traveling Expenses
Cover and inside page

SIA2010-1159-60

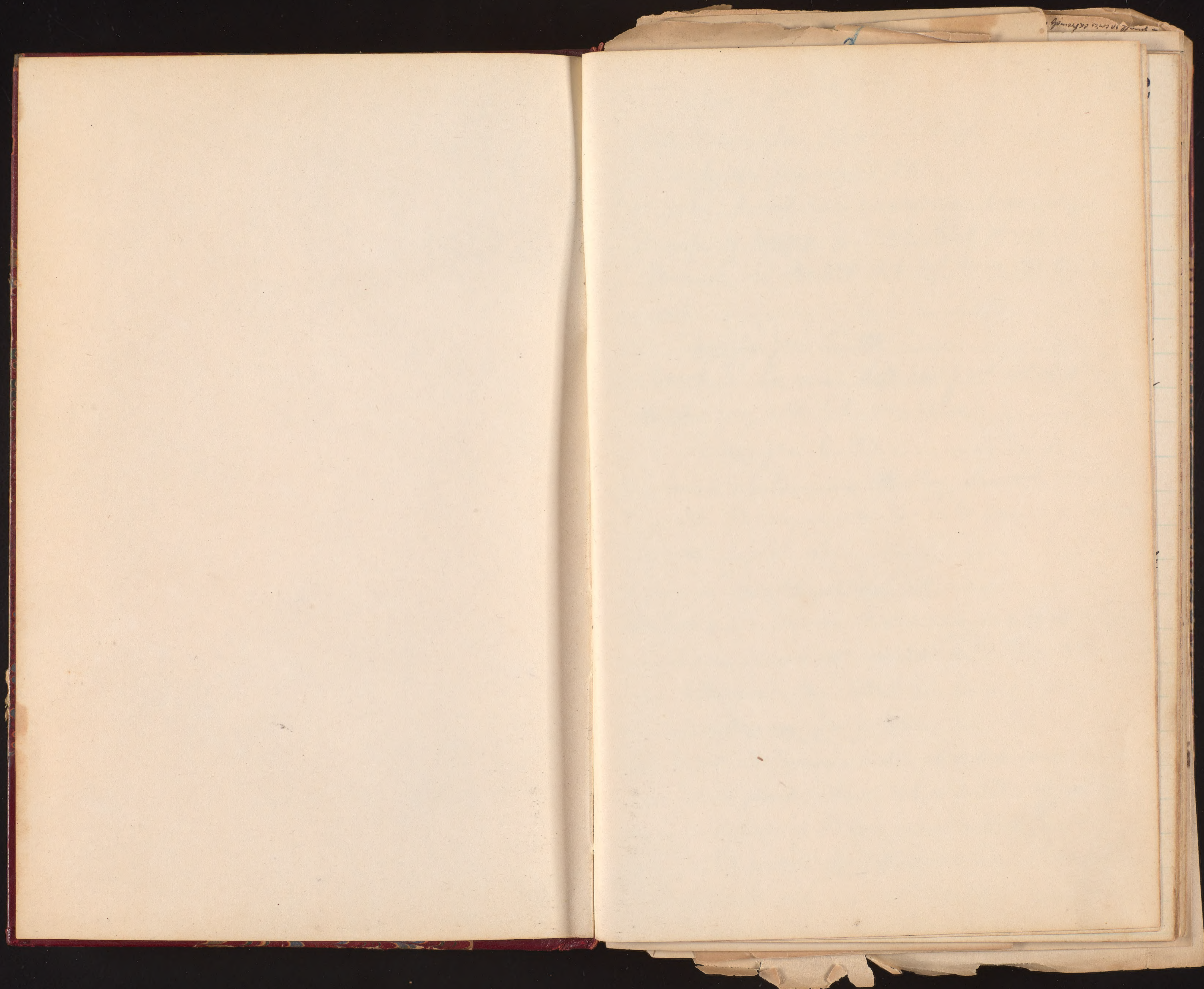
Schwartz's travel log
Cover and inside page



S. A. Schwarz,

Washington, D.C.

Jan. 3, 1911 to



Tuesday Jan. 3, 1911

Left Washington about midnight

Wednesday January 4, 1911

New York Arrived early in morning. Arranged for transfer of baggage & tickets. Went aboard SS Panama but the boat did not leave. Weather very cold.

Thursday Jan. 5, 1911

On board SS. Panama. Left New York at about 6 a.m. Weather very cold but sea calm.

Friday Jan 6, 1911

On board SS Panama. Weather calm and much less cold. At noon we were 330⁺⁷⁸ miles from N.Y. Nothing seen the whole day.

Saturday, Jan 7, 1911

On board S.S. Panama. Weather calm and beautifully warm. At noon we were 665⁺⁷⁸ miles from N.Y. Nothing seen the whole day.

Sunday, Jan 8, 1911

On board SS Panama. Weather calm and warm. At 7 a.m. passed Watling Isd and other islands of the Bahamas. At noon we were 998⁺⁷⁸ from N.Y. In P.M. passed Bird's Rock Island and Fortune Isd. Late in the evening saw Lighthouse on Cape Maisie, Cuba. Many ships seen. Shower late in evening.

1806

397

1843

Monday, Jan 9, 1911

On board S.S. Panama. Weather very warm and calm. Hayti in plain sight toward the east; later we passed between Hayti and Navassa. At noon we were 1332⁷⁴ miles from N.Y.

Tuesday, Jan 10, 1911

On board S.S. Panama. Weather warm but showery in a.m.

At noon 1793 miles from N.Y.

Wednesday, Jan 11, 1911

Panama. Arrived at Colon about 4 a.m. and landed about 7 o'clock. Had trouble in finding Mr. Smith and Dr. Canfield. Took 10.30 train for Panama. Took up quarters in Dr. Canfield's house; went down town to buy clothing; took dinner with Mrs. Jennings.

Thursday Jan 12, 1911

Panama. Saw Col. Goethals this morning and went with him in his automobile to Culebra where we got passes etc. Returned at 1 P.M. to Panama where we had a little entomological experience in a little park. He sent to Washington packing his.

Friday, Jan. 13, 1911

2

Panama. Took train to see Col. Gorgas, Col. Philipps, Maj. Knowles, ~~Dr.~~ Mr. LaPrince, Bath. Took the train for Paraiso, looked at our quarters, made an excursion (no collecting) in company of Mr. Prickett. Returned with the Laborer's train.

Saturday, Jan. 14, 1911

Paraiso, I.C.Z. Took the 10⁴⁰ train out for Paraiso and found our quarters ready for us. Had to wait for several hours for our baggage. Made an excursion on the mountain north of our house, following the drainage ditch to the plateau at the real foot of mountain proper. Vegetation on both sides of the ditch of second growth. Having only my black umbrella not very many insects were to be seen; still quite a number of species are among them.

Sunday, Jan. 15, 1911

Paraiso. Busick & myself again to the same place as yesterday.

Anthribid on dry palm leaves and dry banana leaves. *Smicrops* and *Tachyporus* on ♂ flower of *Attalea*. Coccinellid gall in stem of white-flowering shrub. Quite a number of *Coloptera* on the bushes and small trees at the edge of the untouched forest.

Heavy rain shower in P.M.

Monday, Jan. 16th, 1911

Paraiso. We went across the hill to the creek which is not
Kerosend but at the place where we struck it proved to
be a great disappointment; only one *Stydropilid* (perhaps 2)
and a *Sphaeridid* to be found. There are very few
moist spots along the creek which furnish a few *Staphylinidae*
Tachys, *Microstemma* etc. Quite a number of species were
beaten from the bushes on our way home.

In P.M. we went on the rear side of Hospital Hill where
there is much cut grass along the edge of the timber.
Here there is a very rich insect fauna of all Orders, and it
is manifest that all insects that live on grass and other
low plants have enormously increased in number on account
of the cutting of the timber.

Tuesday, Jan. 17, 1911

Paraiso. Walked in a.m. again on the hill into the plantation
where I was day before yesterday and found a lot of additional
species, including some *Cerambycidae* in the dark timber
where I came across an orchid garden.

In p.m. took my beating net and went again to the
cemetery. The beating net is pretty much useless on
account of the multitude of beggar lice (the very small
Apion apparently lives in them). Still a lot of additional
species were taken. I walked a short distance up the
steep trail to the top and found a felled *Cedrela* tree

3

on the ^{dry leaves} of which there was plenty of *Freyesia* galls, but
I failed to find a living tree. Busck went in p.m. on horse
back to the Granger River about 3 miles due north of here.

Wednesday, Jan. 18, 1911

Paraiso. Went again up the hill but a little farther among
the numerous drainage ditches along which the vegetation
appears to be somewhat more varied. Black *Bruchus* on
Cassia. Queer brownish *Hippid* on a vine resembling
Morning glory. Dr. Canfield called on us at noon.

In P.M. made short excursion around the corner of Hospital
Hill. Found *Himation* and *Porphyra*; circundata on
Heliconia leaf. Went to Commissary store after dinner.

Busck went at twilight around the corner of Hospital hill

Thursday, Jan. 19, 1911

Paraiso. Went a.m. again up the hill and found a moist
place near a ~~pl~~ palm root where many *Staphylinidae*
(*Euchorus*, *Medon* etc) were quite abundant; also a large
Ossorus, an unknown blackish beetle, *Eumicrus* and two
Carabidae. Found a cut off & left eflourescence on the ground
and it proved to full of insects, mostly *Staphylinidae*, the best
of which, a *Megalops*, escaped. Stood on the hill until 2 p.m.
In the evening took the train to Panama. Jennings is still
sick at the hospital and is to be operated upon. Went to
the concert with Busck and Mrs. Jennings.

Friday, Jan. 20, 1911

Paraiso. Returned from Panama at 7 a.m. Went up the hill again and investigated more closely the cut off effluence of ^{nut palm} ~~Atala~~ and found various additional species. For the first time I found a dead tree with 3 or 4 species of Coleoptera under the bark, one of which escaped me. In P.M. Busck got his eye injured. I made a short excursion nearly up Hospital hill through the ravine leading up from the cemetery.

Saturday, Jan. 21, 1911

Paraiso Busck is badly affected by his sore eye. Went up Hospital hill through the ravine. Found the Star Apple tree discovered by Busck and collected some Colastes in the opened fruit. At noon Mr. Farr visited us and I took him to dinner. In p.m. went with Mr. Farr in the ravine above the Cemetery and while resting about $\frac{1}{3}$ up the hill I found that there was some moisture in the ground and that there was some insect life: a little Carabid, a Silphid near Colou, a large Megaloderus etc. An Erotylid larva quite common near the surface of the ground, barely covered with old leaves. Coming home I found Pittier with his assistant and a broken arm in our quarters. Mr. Busck left for the Ancon Hospital with the 6:15 train. A little Osorius quite common flying at sunset near the Post Office. Wrote 3 postal cards to Barber. Pittier told that there was still rain at Porto Bello.

Sunday, Jan. 22, 1911

4

Paraiso. Made a long excursion on Hospital Hill ascending through the ravine on the cemetery. Continued to investigate the soil under weeds but found little additional material. Near the top found several cut-down trees which furnished several new species. Returned after 2 o'clock.

Monday, Jan. 23, 1911

Paraiso. Made two excursions on Hospital hill. In a.m. went into the ravine above the cemetery and continued to search in the moist ground, found a Pselaphid new to me and 2 rather large weevil. In p.m. went on the northern slope, beating bushes and dead branches lying on the ground. Found several new species. The spotted Carida and Astylus to be found on white flowering plant.

Tuesday, Jan. 24, 1911

Ancon - No excursion. Pittier called at Paraiso this morning and complained at the condition of his hand. He says that Maxon is to come down ~~at~~ leaving h.g. on the 28th. Went to Ancon to see about Busck and Dr. Confield. The latter told me of the migration of a "butterfly" from west to east. The species is an Urania. Confield says that its larva feeds on Ficus. Went to Mrs. Jennings in the evening.

Wednesday, Jan. 25, 1911

Paraiso. Left Ancon with the 10:45 train for Paraiso. Went to Hospital Hill by way of the cemetery ravine and descended by way of the northern trail. Heliconia insects: Hispid, Evohomus and Staphylinid

near Triga. Several specimens of a Scolytid on dead branches of
felled tree near top of hill. In the evening a few Col.: *Bostrychid*,
Laemophloeus, *Prestia*, ^{*Xyleborus*} on the cut tree back of our house, nothing
heard from Busck

Thursday, Jan 26, 1911

Paraiso. Nothing heard from Busck. Went up the hill and
collected in the plantation. Many species of *Hispidae* to be
found in the unopened leaves of *Heliconia*. Several *Cassidids*
on vines, large *Caryoborus* among *Attalia* nuts, *Leach*
on *Heliconia* leaves. In p.m. went around Hospital hill,
using my beating net among the weeds along the edge of the
woods. Most insects caught this way make their escape; still
a few new things found. Later, went down the hill below
the cemetery and after some trouble collected some new
things (*Tachygonus* etc.) among the thickets along the lowest
creek. Got some empty boxes from the store keeper.

Friday, Jan 27, 1911

Paraiso. In a.m. went to the Hill plantation; sifted the pieces of
female flower mass of ~~*Attalia*~~ ^{Nut palm} but found only one new thing
(a *Hister* ?); then sifted the ground near the old palm root
without much success except 2 specimens of *Anthonus*. Used
the beating net in the plantation: a black *Hispid*. Looked
at the flowers (perhaps fruit) of broad leaved *Heliconia*:
a red and black *Hispid*, a *Trichopterygid* and *Euchromis* and

a *Belonuchus*. The narrow leaved *Heliconia* is minus the *Hispid*.
At noon Busck returned from Ancon. Jannings is not
to be operated upon. Wait for a few minutes around Hospital
Hill: a large *Eburia* and a queer egg-mass of "a *Leafhopper*"
on very spring *Solanum*. At dusk found an unknown *Colyd*
attracted by the freshly felled tree near our house

Saturday, Jan. 28, 1911

Paraiso - Mr. Pittier, his assistant, Mr. Christopherson, Mr.
S. B. Verner, Matachin, Sanitary Office and colored servant,
came over from Celebra at 7 o'clock. Went out with them on
Hospital hill to get the big *Bauhenia* vine and then went to
the hill plantation to show them Mr. Werner's orchid garden
and the *Cacao* trees found by me. Pittier gave me the name
of the white-flowering plant in the stems of which there is a
Cucurbitonid gall and on the flowers the *Asylus* occurs. It is
Melantheria hastata. What I hitherto considered as the
Attalia palm is the nut palm. Did not do any collecting this
morning except that I found several specimens of a fine *Gecoris*
on the cut edges of a nut palm where the wood is totally dry.
In p.m. went out with Busck on the Hill plantation: found
hecolytus on vine which I cut yesterday. Continued search in the
flowers (? fruit) of broad leaved *Heliconia* and found various
additional species: 2 *Belonuchus*, *Sphaeridium*, *Bartridium*, *Ceryx*,
and a brilliant *Lebid*. Found some more specimens of the

Nut palm *Geræus*, also one specimen of another Centrinid.
Collected a dipterous pupa in flowers of broad-leaved *Heliconia*.
At dusk collected on the freshly felled tree another *Colydiid*,
a *Colastes* and a *Bostrychid*.

Sunday, Jan. 29, 1911

Paraiso - Intended excursion to the Pedro Miguel River but
came only to the large creek, about 2 miles from Paraiso.
Aquatic fauna not rich in specimens but apparently rich in
species. A large *Elm* is quite new to me; a *Heterohelmis*, a
Parus or *Pelonomus*, another genus of *Paridae*, some *Sphaerididae*
and some *Byrrhidae*. Fauna under wet leaves very poor.
On the naked hills near the new railroad an *Anthicus* quite
common on the young growth of the stumps. Bark collecting on
the felled trees very poor: *Brentid*, *Leptisus*, *Solima*, *Chrysomelids*.
Under bark of dead tree near old powder house a *Sosylus* (?) and
a *Leptisus*. Night excursion to the cemetery: only a few Coleoptera
came to light: a *Parusid*, a *Coptodera* (?) and an unknown thing.
Pittier says the Nut palm is *Elaeis melanococca*, the broad-leaved
Heliconia is a *Galathea*, the Cacao tree on the hill is *Herrania* n. sp.
Met Goldman on noon train back from
[belongs to Jan. 30]

Monday, Jan. 30, 1911

Paraiso - Went over to Culebra and met Pittier but failed to see
Col. Gaillard. Small weevils on flowers of Panama hat
(*Cardulovica palmata*)

6

Cardulovica palmata

The Panama-hat palm.

in previous of the Panama-hat-palm commenced to
be active and the yellow weevil ~~was~~ occurred in a few specimens.
Beat a large *Rhyssomatus* from bushes.

Cardulovica palmata.

The Panama-Hat palm.

Nut-palm *Geræus*, also one specimen of another *Centrinid*.
Collected a dipterous pupa in flowers of broad-leaved *Heliconia*.
At dusk collected on the freshly felled tree another *Colydiid*,
a *Colastus* and a *Dorytychid*.

Sunday, Jan. 29, 1911

Paraiso - Intended excursion to the Pedro Miguel River but
came only to the large creek, about 2 miles from Paraiso.
Aquatic fauna not rich in specimens but apparently rich in
species. A large *Planis* quite new to me; a *Heterohelmis*, a
Parvus or *Pelonomus*, another genus of *Parusidæ*, some *Sphaerididae*
and some *Byrrhidae*. Fauna under wet leaves, very poor.
On the naked hills near the new railroad an *Anthicus* quite
common on the young growth of the stumps. Bark collecting on
the felled trees very poor: *Brentid*, *Lispius*, *Solima*, *Lamprophloeus*.
Under bark of dead tree near old powder house a *Sosylus* (?) and
a *Lispius*. Night excursion to the cemetery: only a few Coleoptera

came to light: a *Parusid*, a *Coptodera* (?) and an unknown thing.

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Heliconia is a *Galathea*, the Casae tree on the hill is *Herrania* n. sp.

Met Goldman on noon train back from
[belongs to Jan. 30]

Monday, Jan. 30, 1911

Paraiso - Went over to Culebra and met Pittier but failed to see
Col. Gaillard. Small weevils on flowers of *Panama hat*
(*Cardulorica palmata*)

palm (perhaps two species). Encased in tree fungus. Returned
to Paraiso with the 12.03 train.

In P.M. short excursion into the ravine above cemetery.
~~There~~ where I found *Scolytids* on freshly felled tree, also *Carpophilus*.
From dead vines two rough weevils.

Tuesday
~~Sunday~~, Jan. 31, 1911

Paraiso Went with the morning train to Panama, took breakfast
and hired carriages for Old Panama, passing through the Savenmades.
Collecting done in a wild way, beating the bushes. Fauna and
flora differ considerably from those at Paraiso. Returned
in the evening to Paraiso.

Wednesday, February 1st 1911

Paraiso Wrote up account ^{to January 31st}. In A.M. small
excursion to ravine above cemetery. Most things collected occurred
under bark of felled tree: *Bactridium*, *Conotelus*, *Colastus*, *Platypus*,
Xyleborus, small *Homalota*. A few other good things, *Anthrenus*
and rough weevil from dead branches. Large *Tenebrionid* under
dried plant. In P.M. went to hill plantation and investigated the traps:
the nut palm mats only produced the big *Caryoborus* and a *Tenebrionid*.
The split palm leaves produced plenty of two species of *Centrinids* and
some *Isidulids*. Sifted a little among the old logs in the wood
near the house. The flowers of the Panama-hat-palm commenced to
be active and the yellow weevil ~~was~~ occurred in a few specimens.
Boat a large *Rhyssalus* from bushes.

Thursday, February 2nd, 1911

Paraiso Took the morning train to Matashin, thence by Cayuga up the Chagres river to Las Cruces and thence up to Ahijuela. Investigated our future quarters, now in charge of young Mr. Booth. Returned to Matashin, within 3 hours, and thence to Paraiso. No insects collected on this trip.

Friday, February 3rd, 1911

Paraiso - Stood at home the whole day. Busck telephoned to Mr. Saville about our proposed trip to Ahijuela and we were requested to postpone it for a week. Wrote letter to Dr. Howard and sent 3 packages (nos 10, 11, 12) Wrote letter to Mr. R. Booth at Matashin, C.Z.

Saturday, February 4th, 1911

Paraiso - Went with the morning train to Matashin and then walked up through the shrubbery to Las Cruces arriving there at 9 a.m. Busck went back by Cayuga, myself walked back and did a little collecting. A few new Cynipidae occurred on the shrubbery. A *Parnus* quite common in the two creeks on the way, another *Parnid*(?) genus quite rare and difficult to capture. A *Cerygon* and a *Belonurus* in the flowers of a very large *Heliconia* which contains a great deal of water. Returned to Matashin at 11.40 but the train was late. Returned to Paraiso at 1.30 p.m. Rain shower in p.m. Took the evening train for Panama.

Sunday, February 5th, 1911

7

Paraiso - Returned from Panama with morning train. Went up Hospital hill through the ravine. Found two species of *Pselaphids* (one very small) in the pile of weeds; also some good things (*Cerygon*) on the trunk of the freshly felled tree. Farther up a red *Colaspis* (2 specimens) on a small bush and a number of an entirely red *Lia* (*Hispid*) on another small bush. Farther up, a *Colaspis* is not rare ^{among} the dead leaves of a felled tree; at the top the hill is very dry and apparently without ~~it~~ much insect fauna. ~~In going down~~

Monday, February 6th, 1911

Paraiso - In A.M. went up to Hill plantation; investigated the cut leaf stems of Nut palm and found an additional species, an *Onchium*. Went up the hill back of the orchid gardens and found many good things by beating the vines wherever it was possible. The best thing is a beautiful *Otidoccephalus*, then a *Statira* and other things. A small yellowish fungus furnished a banded *Platydemus* and a whitish fungus on the same log a colony of a handsome *Triplax*.

In P.M. went down below the cemetery and beat the bushes along the lowest creek. Found some good things: a small *Pselaphid*, a *Malachiid*, a *Lebid* and a red *Apion*. It was very warm to-day.

Tuesday, February 7th, 1911

Took the morning train to Botrio, went into the up first valley south of depot. Heavy dew. Found a creek without running water but with moist bottom. There is a thin layer of old leaves and then moist earth or sand in which a number of species

occurred which I did not meet elsewhere, among is a most minute Pselaphid (2 specimens), a Pteridicum (2 specimens), a Cyphorid (numerous), an Atacirius and some other species. They are packed in a separate pill box duly labeled. The beating of the oases and bushes produced some new things, but not very many. The decaying male flowers of the Bananavae produced a few things. Took dinner at the colored quartermaster house but my return trip to Paraiso was greatly delayed by the burning of the bridge across the canal.

Wednesday, Febr. 8, 1911

Paraiso. - A.M. went up to the Hill plantation: looked at the cut palm leaves trap without finding anything new. Went up above the orchid garden and discovered quite an insect fauna living in the cut trunks of a tree with very tough fibrous bark, which is full of moisture (Previously I found an Onalodes in the same species of tree) and most insects are difficult to dislodge from the fibres. Besides of the usual fauna of Eriomus, Ceryon etc. there were a fine Xanthopygus, numerous Piestus and a larger species of the same group, two species of small Histerids and two most delicate Staphylinidae, one a species of — the other something near Thoracophorus. Beating the bushes not much indulged in and nothing important found.

In P.M. very short excursion around Hospital hill and up the ravine.

The trap of rotten Grape fruit furnished a second example of a Silphid;

beating the bushes with poor success: on small weevil and an Attelabus. Looking at my lay trap, no success. From a stick of old wood beat the Erythrid of which I have larvae and pupae.

Thursday Febr. 9, 1911

Paraiso: A.M. went to Hill plantation and continued to investigate the fauna. No additional species taken. Beating the vines up to the cliff on the hill gave poor result (Eucnemid and some weevils). In P.M. went in the valley behind the Hospital hill and found a felled tree under the bark of which a large number of species new to me were found. Also a few good things (Terebricosoma, Clerid, Eucnemid) beaten from felled trees which had still dried foliage. Those collected in P.M. are in separate pill box.

Friday February 10, 1911

Paraiso. Went over to Culebra, saw Pittier and spoke to him about trip to Porto Bello and Chiriqui. Saw Mr. Trask the Sanitary Officer. Went to Col. Goethals' Chief Clerk, M. McIlwain and arranged about Porto Bello trip and he promised to send us Boat pass and Arrigement to Paraiso as soon as practicable. Saw Col. Gaillard. Went home with the noon train.

In P.M. went again on short excursion to the valley behind Hospital hill and continued to investigate the fallen log found one or two additional species. Beat a few good things from the dead foliage of cut trees. Also a few things from young shoots.

Pittier has an *Acrosinus longioratus* at hand, probably found near Caldera, and Col. Gaillard told of the abundance of *Megasoma elephas* in the rainy season. The species occurs also at Alhajuela.

Saturday, Febr. 11, 1911

Paraiso Mr. Bath, of the Sanitary Dept came out early this morning to see how we collect insects, and we carried him around Hospital hill to the valley opening towards Pedro Miguel. I continued the investigation of the bark of the felled trees, and beat a little the bushes. A few new things were found. Very heavy rain, shower with thunder in the afternoon lasting almost 2 hours.

Sunday Febr. 12, 1911

Paraiso Heavy rain last night and misty the whole morning. Heavy rain in the early afternoon and light rains afterwards until 6 o'clock p.m. Remained at home the whole day and packed insects for Washington (packages 14 and 15). Mr. Henry Schwartz, Pedro Miguel Engine House, an amateur insect collector, paid me a lengthy visit in the p.m. Dr. Perry B. Preston gave us a letter to Dr. W. L. Gibson, Porto Bello.

Monday Febr. 13, 1911

Paraiso Heavy rain in morning. In P.M. went to valley behind Hospital hill and beat the young shoots growing on tree stumps. Found several new species. Packed traps for Porto Bello.

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9

WASHINGTON
BUREAU OF ENTOMOLOGY

MAY 22 1913
RECEIVED
December 31 1912.

191

Respectfully referred to:

E. A. Schwarz. — 2.

No. 31. Taboga Island. Nov. 1912.

No. 32. Taboga Island. Nov. 1912.

No. 33. Taboga Island. Nov. 1912.
Very common.

No. 34. Taboga Island. Nov. 1912.

No. 35. Taboga Island. Nov. 1912.

No. 36. Taboga Island. Nov. 1912.
Specimens found also in Aguadulce,
Penonome etc.

No. 37. Near Panama City. Sept. 1912.
Also in Penonome.

No. 38. Near Panama City. Sept. 1912.

No. 39. Road to Corozal, C.Z. Sept.
1912.

No. 40. In Panama City in old rags.

No. 41. Boquete, Chiriqui. July 1912.

csm/bk

JAN 22 1913

Return this slip with your reply.

5-1549

Train.

loaded

Port Bello

from

Bello to

Everything

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the dwelling

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U. S. DEPARTMENT OF AGRICULTURE
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csm/bk

JAN 22 1913

2nd
100



Porto Bello Panama
March 19. 1911

SMITHSONIAN INSTITUTION.

UNITED STATES NATIONAL MUSEUM.

Dear Mr. Schwan
Just back from a fine
two day trip up the Riquena
Ventura river - where among
other things a got Electric light
Bottles 2 spp 9 lb. -

Finda Yours of 16th here
Don't worry about your stick
You shall have it end of the
coming week - I take the janitor
along with me to help carry my
stuff. Gave him 6 Dollars for
us both for last month I thought
it was enough - shall give
him something more myself
for coming along with me of
course. - Off to Nombre de Dios
+ Tuesday horseback to Ventura.

I have ⁴Mr. ⁴Far ended
the work - Hope ⁴You
fixed up the Jennings
matter ~~to~~ everybody's satis-
faction, had a letter from
him, which shows him
anxious about it.

All love - hope You
same is as with You -

If you have not already
committed yourself better
go slow on the Li Prince
matter (Light) - I asked him from
Howard some time ago and
had his answer last week
indicating that he is not willing
to have us say anything about
his experiments, before he
has done so. Sincerely, Tom AD.

Attalea gomphocera

from Panama

See Pittier Nat. Geogr. Soc 23,

July 1913

Pittier has an *Acrosinus longimanus* at hand, probably found near Culebra, and Col. Gaillard told of the abundance of *Megasoma* elephants in the rainy season. The species occurs also at Alhajuela.

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Paraiso Heavy rain in morning. In P.M. went to valley behind Hospital hill and beat the young shoots growing on tree stumps. Found several new species. Packed traps for Porto Bello.

Tuesday, February 14, 1911

Porto Bello. — started from Paraiso with the morning train. Very bad arrangement of reaching the steamer at Mt. Hope loaded with heavy baggage. Reached at 9 a.m. and reached Porto Bello a little after 11 o'clock. Had some trouble in having our room assigned. In P.M. took gasoline launch for Old Porto Bello to look at the place. Rain showers during the whole day. Everything is dripping wet here but scenery charming. Name of Quartermaster is Morgan and his young assistant Carpenter. A striped *Disonycha* seems to be common on a species of *Polygonum*.

Wednesday, February 15, 1911

Porto Bello. Rain during the entire night and at intervals during the day. Went to the old Fort and tried in vain to find a trail leading into the woods. A fine weevil and a *Diabrotica* on the cut vegetation at the edge of the woods. *Anthrenus* under a moss-like plant on creek side. Gigantic *Heliconias* in the timber just behind the Fort. There is another *Hispid* living on the underside of these leaves also two species of good-sized *Coccinellids* and a *Seymouria*. In p.m. went to the same place sifted a little among the wet leaves (1 *Belphid*, 1 *Trichopteryx*, genus of *Allochlamys*); on the few places where the umbrella could be used a few things including a *Pelidnota* and a *Pyrophorus*. A *Mordella* flying about on the weeds. This locality is not good but readily accessible from the dwelling houses. Busch had gone to Old Porto Bello and found a large number of good things.

Thursday, February 16, 1911

Porto Bello. - Went with Busck over to Old Porto Bello, followed the old trail westward (very muddy) for about $\frac{1}{2}$ miles and then turned into the valley of a creek. There does not seem to be any riparian fauna of aquatic insects only a (?) Helicoverpa and a Hydratna could be found; a Chaetanthia was seen. There is very little opportunity of beating the vegetation along the creek itself, but Busck found a very nice Hispid (genus? Leiothrips, red, with black margin) on the leaves of a palm. The still rolled-up leaves of the Heliconia are rich in Hispids: 1, a striped species, a small red species, and a large spotted one (one specimen); a very large Hispid with banded elytra (1 specimen), a fine Carabid (one specimen), and a large Trichopterygid and a minute Thrips (not collected). A larger red Hispid from a palm leaf. The rest of the insects collected on this day come from the shrubbery along the higher bank of the creek where the forest has been cut down years ago. Took dinner at Old Porto Bello.

Friday, February 17, 1911

Porto Bello. - Went back of the Old Fort up some distance in the valley of the little creek. The whole little valley is rather a banana plantation. From the rolled-up leaves of a very broad-leaved Heliconia, I got still another Hispid. Some good things were beaten from dead banana leaves and elsewhere but here as everywhere else places for beating are scarce.

In P.M. went up the trail to the second fort, but found very little. Was caught in big rain shower.

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Saturday, Febr. 18, 1911

Porto Bello. - Went behind the old Fort, sifted a little (a fine Anthicid, a Psephenid) looked a little on the underside and in the rolled up leaves of Heliconia and found more specimens of the two larger Coccinellidae (also a Selysius-like one) and some of the Hispids. Climbed up the hill a little and found within a rotten branch a colony of some ant, workers and clumsy soldiers and in the midst of the same a queer Groundsill Larva, very sluggish in its movements. In the vines and bushes a little Eucnemid beetle and some other good things. Finally beat the low bushes in the clearing and found a few good things. Close mimicry between a Lemna and Dabrotica occurring on the same bush. In p.m. short excursion to the open grassy slope between our house and the Fort; not much of course seen. taker. Busck went over to Old Porto Bello to-day. Only one little shower today.

Sunday, Febr. 19, 1911

Porto Bello. - Went from the Old Fort along the edge of the forest up the hill. The locality looks excellent but furnished comparatively few new things. A very large, fasciate Hispid, having the appearance of an Erythrid in the half-opened leaf of a Heliconia; an Octotoma on an unknown shrub. Two or three weevils new to me including a Comptos. Weather fair during excursion; showers in the early morning and in the afternoon.

Monday, Febr. 20, 1911.

Porto Bello - Went over to Old Porto Bello and followed the new road to Colon for about 1 mile. Everything dripping wet from the last rains. Commenced to collect at the old clearing some distance up the hillside. Plenty of insects on the bushes, everything being wild and only a small portion can be captured. The bright red Hispid and the smaller red one with black margined elytra on the underside of a palm which may be the Attalea. Other Hispids as usual in rolled up leaves of Heliconia. The peculiar black and greyish weevil has a definite food plant: it ~~it~~ eats a hole in the surface, probably from the upper surface than forces its way into the hole turns its body sidewise and enlarges the hole. In this position it resembles a piece of bird's dung closely. A blue Halticid lives on the flower of the same plant. In a little creek that crosses the road one specimen of a Hydrophilid. Went some distance into the dark woods and beat some good things; several Curculionidae and a Strongylus. A pair (in copula) of a ~~greenish~~ greenish gray Curculionid, elongate with tuberculate elytra and a pair (in copula) of a Zygopid on bushes. Returned at about 3 o'clock p.m.

Tuesday, Febr. 21, 1911

Porto Bello - A.M. Went to the same place as yesterday i.e. just ~~little~~ above the clearing along the Colon road and got various additional species. A Pselaphid (4 specimens) under bark; a fine Hispid (red elytra with black centre) from

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underside of a small palm tree; a fine Anthribid, various weevils, a Colydiid etc. The place where these things occur is a small very dark ravine close to the trail. Some good things escaped me again. Came home about 3 p.m. On the clearing itself some good things (Baris, Copterus) etc. on the young shoots of shrubs. A small Epilachna quite common on and destructive to the foliage of a bean-like vine (no flowers seen).

Wednesday, Febr. 22, 1911

Paraiso - Took the tug Porto Bello at Porto Bello, 6 a.m., went to Colon thence by 10 o'clock train to Panama. Eat dinner at Angelini's and bought a watch. Returned to Paraiso with the 4 p.m. train. Met Mr. Rudolph Werner, the Orchid man.

Thursday, Febr. 23, 1911

Porto Bello. - Left Paraiso at 6³⁰ a.m., went to Colon, took the tug Porto Bello at dock 13 and arrived at Porto Bello a little after 12 o'clock in very heavy rainstorm. Arranged traps in P.M. At 4 made short excursion in the little creek valley behind the old Fort, beating the bushes. A Carabid beetle, a Pselaphid, a Tenebrionides (very small) an Otidopneustes and an Elaterid seem to be new to my collection. A Cassida sp. on Convolvulus; a shining black Baridiid (3 or 4 specimens) on a small Acacia-like bush without spines.

Friday, Febr. 24, 1911

Porto Bello. - Very heavy shower at 7 a.m. Wrote letter to Barber and packed cigar box of pill boxes to Howard. In P.M. went behind the old Fort. On the way looked under the bark of the old, fallen-down fig tree on the beach: found a fine *Colydoid*, 1 *Platysoma*, 1 *Carcinops*, 1 *Eumecurus*, several *Lispinus*. On the slope of the hill beat with success the dead Banana and *Heliconia* leaves; several fine weevils and a lot of good things were thus obtained in a short time. A fine *Rhizophagid* from a bush; a genus near *Telephorus* from old Banana leaves.

Saturday, Febr. 25, 1911

Porto Bello. There was no rain until late in the evening. In a.m. made short excursion to the old Fort and beat the old Banana leaves and other bushes. Found a *Clytus* (badly injured while handling) a queer *Stilicopsis* or allied genus, a small *Histerid* and another specimen of the *Eudomyzid* resembling the genus *Crotchia*. Found within the Fort an old rather soft fungus growing on a stump with the following insects: 1 *Trechus*; 1 *Henicosephalus*, 2 *Leptocinus*; 1 *Gyrophaena*; 1 near *Scorpæus* (?) 1 *Ossorus* (or genus close to) several large *Lispinus* and a number of larger Col. larvae, besides some Dipterous pupæ. Returning before 10 o'clock met Mr. Cleveland who brought me to his tent house at the very point of the peninsula. Went to the little beach at the power house but found only a single specimen of a *Phaleria*. Went to look under bark of the cut trees near the tents and found a rich fauna: two species

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of *Colydidae* (possibly one specimen of a 3rd species); a remarkable 4-spotted species looking like a *Rhizophagus*, at least two species of *Lispinus* *Laemophloeus*; several species of *Lispinus* and allied genera; 1 *Xanthelinus*, 1 near *Hornalota*, 1 *Coronus*, 1 *Ischyrops*, 1 *Dolium*, 3 species of *Forficulids* and the usual number of sawbugs. There was an light-brown *Elatrid* larva not rare in certain places. Returned after 3 o'clock.

Sunday, February 26, 1911

Porto Bello = Excursion to Old Porto Bello, up the road to Colon. Looked under the bark of two logs (? fig trees) and found a *Cryptorhynchid* beetle in their cells just below the bark proper; also one pupa (preserved with immature imago in alcohol). In same log found pupa of an *Eucnemid* beetle (put in vial to breed) and under the same fragment of bark an *Eucnemid* larva (put in alcohol). Otherwise the bark fauna was not remarkable. (A small *Belaphid* found under bark of another log). The specimens are in separate pill box. In rolled-up leaves besides the usual striped *Hispid* (and one entirely red; another with black tip of elytra) several specimens of a very large *Eratylid* *Hispid* and two specimens of what is most probably the ^{1st} larva (in alcohol with imago). Rain all the time, fixed up a beating net and went into the timber above the clearing: a *Clyrid* larva; *Hydrocera*, very ant-like on underside of palm leaves; *Himantidium* etc. but only on a single tree. Large *Tamarix* on old leaves of cut tree in upper clearing.

In the evening Burck found small *Phengodid* larvae apparently not far from our house. He says they live in holes in the ground and retire into the ground upon slight disturbance. Their light is green (not greenish yellow), most conspicuous on the head but not all over the same; there are two pairs of beat-like luminous spot near the hind end of the body (one pair on each of the penultimate segments). They are very quick in their movement.

Monday, February 27th, 1911

Porto Bello - Very heavy rain in early morning and several in p.m. and evening. Went behind the old Fort and found under the very thin bark of a felled tree the following: *Acritus*, one specimen; *Paronellus* (or *Carcinops*) 2 or 3 specimens; *Thoracophorus*, 1 specimen; very small *Erechmus* (many specimens seen), genus near *Homalota*, several specimens; *Piestus*, several specimens; *Eleusis*, 1 specimen; near *Eleusis*, 2 specimens. In two kinds of fungi some good things were found notably a black *Alcockarid* looking like a gigantic *Microcera* and another much smaller species, also a *Gyrophæna*, 2 species of *Scaphisoma* and the reddish species allied to *Gyrophæna*. From bushes I beat a beautiful *Eucnemid*, a *Leptostylus*, a fine *Hydnocera* and various other good things, including one specimen of a *Hispid* (yellow elytra with black suture). All other *Hispidae* caught to-day are from *Heliconia* except the *Himalidium* which occurs on the underside of the broad-leaved *Heliconia*. A *Phydrenes*

on the leaves of the *Solanum* with spinous leaves. A fine *Conotrachelus* on dead *Banana* leaves. A *Belonuchus* (?) in the ~~rolled-up~~ ^{dead} leaves of *Heliconia*. *Banana*.

Tuesday, Febr. 28, 1911

Porto Bello. - Weather fair with only a little shower in p.m. Made an all day excursion along the Colon road on the other side of the bay. On the upper edge of the old camp there is among the open scrubby the vine which is the food-plant of the little *Epilachna* but there are also the mines of two species of small *Buprestids*. In the heavy timber farther up a large number of insect were beaten by me which I did not find before, they occur mostly on the low plants and low bushes. A vine or branch far above ground furnishes but little. A short and comparatively easy walk through the very dark timber brings one to the edge of a large clearing where the cut branches of trees, palms etc. form a great thicket. On the trees lying on the ground and on which the foliage ^{is} still adhering another large set of insects occurred. It is quite impossible to tell when this clearing has been made, some trees look as if they were felled yesterday; in other cases large shoots have grown from the stumps. A partial list of the ~~the~~ new species found is as follows: *Monocerus*, *Tachygonus*, *Xylophilus* (2 species, one short, the 2nd elongate), *Petalium* (?), *Cyphonid* (with red and black thorax); large *Sydnaenus*, small *Elaterid*, two or three small *Coccinellids*, *Malthodes*; Green *Hispid* (very rare; food-plant not ascertained); *Melandryid*, *Lamproid* etc. These all in the dark timber. On the felled trees: *Eleusis*, *hemosoma*, *Bactridium*, various *Eucnemids* and *Cerambycids*, two or three species of *Coccinellids*. There

are also various species of *Meecids* and *Anthicids* not enumerated

Wednesday, March 1st, 1911

Porto Bello - Repeated the excursion from yesterday. The trees in the clearing were not as favorable as yesterday. Still some good things were obtained, but the lower plants in the clearing produced again an astonishing number of species never found before; the following being a partial list: Red Hispid from palm leaves; dark Hispid with reddish elytral margins from underside of small *Heliconia* with reddish stem; black Hispid with long legs; food plant unknown; a small *Cucujid* with variegated elytra; *Orthoperus* on leaves; a *Trichopteryx* quite common under old leaves; *Macraethia* sp. (one specimen); unknown brownish beetle (one specimen); *Stilicopsis* sp. (one specimen); Small *Anobiid* (one specimen); a red *Halticid* (one specimen); a *Hilid* (one specimen); a *Stenotarsus*, an unknown *Gyrinid*, a large *Corrosoma*, a very black *Phylodactyla*; large blue *Coleinellid* (one specimen); *Chilocorid* from ^{palm} ~~palmetto~~ leaf (one specimen); larger *Halticid* with red thorax (one specimen); a *Cavabid* etc. There are also new things among the larger specimens and among the weevils which I did not investigate to-day's catch occupies 4 pill boxes. There was no rain to-day.

Thursday, March 2nd, 1911

Paraiso. Extremely heavy rain shower between 6 and 7 o'clock. Stood at home and left for Colon at 1 p.m. Saw the hostmaster, Mr. Fichtig at Cristobal and took the 8.30 p.m. train for Paraiso. Somebody then gave me a *Mallochoris*.

Friday, March 3, 1911

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Paraiso - Went with the morning train to Culebra and got new Hotel and Commissary books, saw Col. Goethals and Gallard, met Mr. Picket. Took the noon train to Panama, got my watch and returned to Paraiso with evening train.

Saturday, March 4, 1911

Paraiso - Overslept myself! so can not return to Porto Bello before Monday. Fixed up a reserve umbrella and went to top of Hospital Hill by way of the ravine returning by way of the steep trail. Found a few subtle things in my old hay trap (*Anthicus*, *Strydomaenus*, *Pedaphid* and by beating a few good weevils. The district is now very dry.

Sunday, March 5, 1911

Paraiso. Went out in a.m. behind Hospital hill; beat the dead branches of the dead trees and the young shoots on the stumps of felled trees with moderate success; *Lathropus* and small *Anthrenus*. Collected under bark of the felled trees: a fine *Drapetes* and a *Scolytid*. A fine *Coccinellid* on shrubbery. All *Hispid*s in rolled up *Heliconia* leaves. In p.m. went up to the Hill plantation and spent several hours with Mr. Warner. After supper went to the native village on the ^{brink} ~~bank~~ of the Canal to look at some ancient ~~one~~ orange trees; found accidentally a fine weevil.

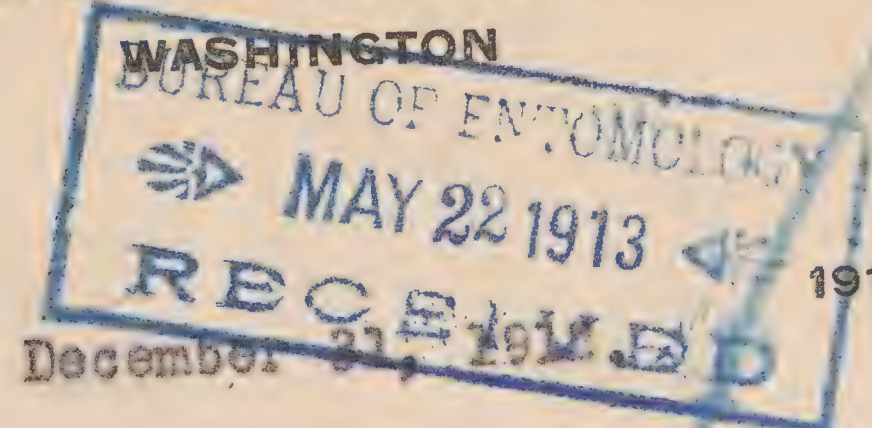
Monday, March 6, 1911

Porto Bello - Took the morning train from Panama to Colon. Had to walk to Dock 13 but caught the "Porto Bello" which brought me to Porto Bello at 12.30. Busck went to Panama with the return trip of the boat. Made a little excursion back of the old Fort but did not find much of consequence.

Tuesday, March 7, 1911

Porto Bello. A.m. went over to Old Porto Bello along the road to Gatun. Went down into the hollow below the old camp and beat the bushes and collected under bark of the old tree below the trail. Went into the heavy timber above the clearing and beat the bushes. Many new things were caught. The trail I took is possibly the old Colon trail. All Hymenoptera taken to-day (except the very large wasp-like ones which occur in *Heliconia*) are from palms. On vines in the dark forest 2 specimens of a *Salpingid*. An unknown bluish beetle (2 specimens) from bushes below the old camp. Under and within the bark of the log below the big fig tree a Scarabaeid larva is common and since I found there an imago of *Ataeniscus*, the larvae may belong to this genus. The two small Diptera are from the rolled-up *Heliconia* leaves.

U. S. DEPARTMENT OF AGRICULTURE
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191

Respectfully referred to:

Mr. E. A. Schwarz.

National Museum.

(For determination.)

Specimens received from Mr. H. G. Ireneo, Box 175, Ancon, Canal Zone. Wishes determination of specimens and family to which they belong. Specimens need not be returned.

Specimens numbered as follows:

No. 26. Collected in Taboga Island in November 1912. Other specimens found in Penonome.

No. 27. Taboga Island, Panama City & in many other localities. Common.

No. 28. Taboga Island. Nov. 1912. Very common.

No. 29. Taboga Island. Nov. 1912. Not met in other localities.

No. 30. Taboga Island. Nov. 1912. Also in Penonome. Common.

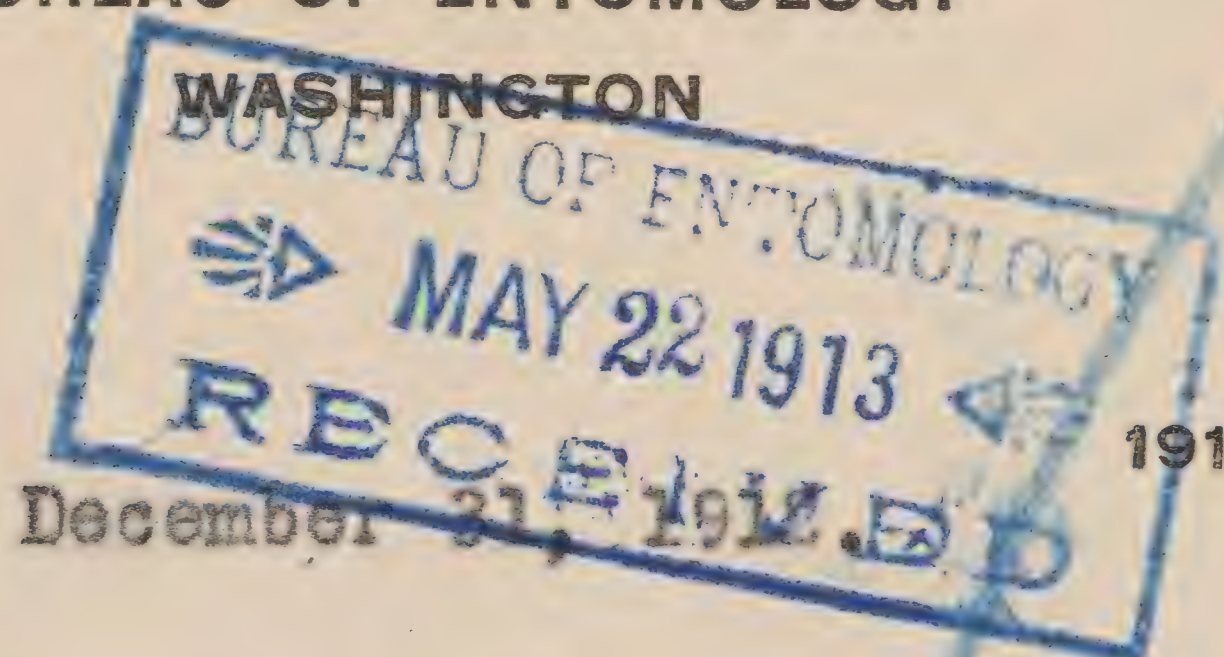
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JAN 22 1913

Return this slip with your reply.

5-1549

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csn/bk

JAN 22 1913

SMITHSONIAN INSTITUTION

Washington, D. C., 191

S. O. Verner
Matachin
Sanitary Office

House # 48
Bas Obispo

Melanotheria hastata

Mr. Max Gutman

Settle with account about breasted

March 8. Small pill box

Unknown beetles, 2 species

Cyphonid

Cluid

Weevils in upper
layer

Red Coccinellid

Ataenius

Cephaloscyamus

Cassidid (small)

Meloidae

Small Staterid

Large pill box

Many Cerambycids

Large Hispid from
Heliconia

Red Hispid

Hispid with red margin } from Palm
leaves

Heliconia insects.

Stimulid-like black, yellow thorax

" variegated elytra

Lea; yellow-spotted

" red (small)

" " (large)

" variegated elytra

Hispid, large species

" large species

Leaf-hopper striped

" pale wings

Dipter - -

Thrips

Thysanoptera

Coccinellid 3-spotted

" bluish with yellow margin

Coccinellid small species

Belonuchus

73.45

2.50

75.95

86.08

162.03

172

250

125

125

250

Febr. 28

Armadus Green Hipsa!

Tachygona Melandryid

Xylophilus Flatand

Eleusis Hematodes

Petalium Eumolpid

Microbyus Lampyrid

Cyphorind Vanner good
Parh
Corymbellid (2 species)

Sydnaiid

Small Flatand.

Xylophilus (elongate)

Small Corriidid

Neomozoma

Machodes

Bastriid

Two leaf-miners

Buprestids on same

plant with Epitachus

Febr. 27, old Fort

Europe from bushes

1) ~~Antlar~~ under bark

Reddish near Syrophae in fungus

Sphagnum in fungus

Grind from bushes

Thoxophorus in bark

Small Corymbid from bushes

" Erichonum } under bark

" Homalids }

Eleusis " "

Black near Syrophae in fungus
(2 species)

near Hippocampus under bark

Mite " "

Large Larva from fungus

Pistia under bark

near Pistia " "

Histeridae " "

All Histerids except larger one
(yellow elytra with black sutures)
which occurred on bushes)

in Haliconia

near Belonchus in Haliconia

Eucnemid!

Leptostylus

Hydrocava

Phydromus on Solanum with
spring leaves

Conotrachelus on Banana leaves

March 1

March 1

March 21

March 1

Cucujid

Red Hattirid

Orthoperus

Pilic

Macraethia

Endomyzoid

Xylophilus

Red Hippid from palm

Scolytid

Cyphoid

near Phytocera

Unknown brown beetle large Coccinellid

near Samius

Phitodactyla

Small Anobid

Blackish Hippid

Hattirid

Large blue Coccinellid

Dark Hippid with reddish

elytral margins (leaves of Heliconia)

Chiloconid from palm-leaf

Hattirid with red thorax

Cavabid

Cerambycid

Weevils

Erotylid

Tenebrionid

etc.

Chalcid



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TIME TABLE

No. 8

In effect January 1, 1911

in purchasing tickets, provide the correct change, if possible.

Check your baggage not less than thirty minutes before schedule-leaving time of train.

No baggage allowance with commercial transportation, except hand baggage.

Passengers intending to embark on steamship lines at Colon or Balboa should deliver and check their baggage on the evening of the day previous to sailing, when possible.

Baggage should be plainly marked with the name of the owner and in care of the steamship line.

Parties having secured their tickets via the Panama Railroad Steamship Line can have their baggage checked through to New York.

Those not having through tickets and going via Panama Railroad Steamship Line, should have their baggage checked to dock No. 11, Cristobal.

Through passengers across the Isthmus, in either direction, must have their passage orders exchanged at the ticket office, and should have their baggage checked through to destination, or in care of their connecting line steamer.

Baggage received from ships, checked locally, as well as all hand baggage, is subject to customs inspection, and cannot be removed from the dock or rechecked until passed by the customs authorities.

Baggage transfer charges within the cities of Pan

SOUTHWARD

NORTHWARD

29	27	25	23	21	7	5	3	Miles from Colon	STATIONS		2	4	6	8	20	22	24	26	28	30
Pass Sunday Only	Pass Sunday Only	Pass Sunday Only	Pass Sunday Only	Pass Sunday Only	Pass Daily Ex. Sun.	Pass Daily Ex. Sun.	Pass Daily Ex. Sun.				Pass Daily Ex. Sun.	Pass Daily Ex. Sun.	Pass Daily Ex. Sun.	Pass Daily Ex. Sun.	Pass Sunday Only	Pass Sunday Only	Pass Sunday Only	Pass Sunday Only	Pass Sunday Only	Pass Sunday Only
P. M.	P. M.	P. M.	A. M.	A. M.	P. M.	A. M.	A. M.				A. M.	P. M.	P. M.	P. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.
Leave	Arrive	Leave	Arrive	Leave	Arrive	Leave	Arrive				Arrive	Leave	Arrive	Leave	Arrive	Leave	Arrive	Leave	Arrive	Leave
29	27	25	23	21	7	5	3		Telegraph Station F. Flag S. stop		2	4	6	8	20	22	24	26	28	30
7.00	4.00	1.00	10.00	6.45	4.35	10.30	5.25	.00	†COLON		8.35	12.50	3.35	7.35	8.45	12.00	3.00	6.00	9.00	11.40
s 7.05	s 4.05	s 1.05	s 10.05	s 6.50	4.39	10.34	s 5.30	1.77	†Mt. Hope Cabin..	s 8.30	12.47	3.30	7.30	s 8.41	s 11.56	s 2.56	s 5.56	s 8.56	s 11.37	
f 7.10	4.10	1.10	f 10.10	6.55	4.45	10.40	s 5.36	4.37	†Mindi	s 8.24	12.42	3.24	7.24	f 8.35	11.50	2.50	5.50	8.50	f 11.31	
f 7.15			f 10.15				s 5.41	5.94	New Gatun.....	s 8.19				s 8.30					f 11.26	
s 7.18	s 4.18	s 1.18	s 10.18	s 7.01	s 4.51	s 10.46	s 5.44	6.79	†Gatun.....	s 8.17	s 12.38	s 3.19	s 7.17	s 8.27	s 11.44	s 2.44	s 5.44	s 8.44	s 11.24	
s 7.36	f 4.36	f 1.36	f 10.36	f 7.19	s 5.11	s 11.07	s 6.03	15.26	†Bohio	s 7.58	f 12.16	f 2.59	s 6.56	s 8.08	s 11.25	s 2.25	s 5.25	s 8.25	f 11.05	
s 7.42	s 4.42	s 1.42	s 10.42	f 7.25	s 5.17	f 11.13	s 6.09	18.51	Frijoles	s 7.52	s 12.10	f 2.53	s 6.50	s 8.02	s 11.19	s 2.19	s 5.19	s 8.19	s 10.59	
s 7.48	s 4.48	s 1.48	s 10.48	s 7.31	s 5.23	s 11.19	s 6.15	21.37	†Tabernilla	s 7.46	s 12.04	s 2.47	s 6.44	s 7.56	s 11.13	s 2.13	s 5.13	s 8.13	s 10.53	
					5.24	11.20	6.16	21.61	†Tabernilla Cabin..	7.45	12.02	2.46	6.43							
					5.26	11.22	6.18	22.87	†Barbacoas Cabin..	7.43	P. M.	2.44	6.41							
s 7.53	s 4.53	s 1.53	s 10.53	s 7.36	s 5.27	s 11.23	s 6.19	23.30	†San Pablo	s 7.42	s 11.59	s 2.43	s 6.40	s 7.51	s 11.08	s 2.08	s 5.08	s 8.08	s 10.48	
f 7.59	f 4.59	f 1.59	f 10.59	f 7.42	f 5.33	f 11.29	f 6.25	25.74	†Mamei	f 7.36	f 11.53	f 2.37	f 6.34	f 7.46	f 11.02	f 2.02	f 5.02	f 8.02	f 10.42	
s 8.04	s 5.04	s 2.04	s 11.04	s 7.48	s 5.40	s 11.36	s 6.32	28.27	†Gorgona	s 7.29	s 11.46	s 2.30	s 6.28	s 7.41	s 10.57	s 1.57	s 4.57	s 7.57	s 10.37	
s 8.09	s 5.09	s 2.09	s 11.09	s 7.53	s 5.45	s 11.41	s 6.37	29.68	†Matachin.....	s 7.24	s 11.41	s 2.25	s 6.23	s 7.36	s 10.52	s 1.52	s 4.52	s 7.52	s 10.32	
s 8.14	s 5.14	s 2.14	s 11.14	s 7.58	s 5.49	s 11.45	s 6.42	31.01	†Bas Obispo.....	s 7.20	s 11.37	s 2.21	s 6.19	s 7.31	s 10.47	s 1.47	s 4.47	s 7.47	f 10.27	
s 8.20	s 5.20	s 2.20	s 11.20	s 8.04	s 5.55	s 11.51	s 6.49	32.62	Las Cascadas.....	s 7.14	s 11.30	s 2.15	s 6.13	s 7.26	s 10.42	s 1.42	s 4.42	s 7.42	s 10.22	
s 8.25	s 5.25	s 2.25	s 11.25	s 8.09	s 6.00	s 11.56	s 6.54	34.91	†Empire.....	s 7.09	s 11.25	s 2.10	s 6.08	s 7.21	s 10.37	s 1.37	s 4.37	s 7.37	s 10.17	
						P. M.			†Culebra	s 7.04	s 11.20	s 2.04	s 6.03	s 7.16	s 10.32	s 1.32	s 4.32	s 7.32	s 10.12	
s 8.30	s 5.30	s 2.30	s 11.30	s 8.14	s 6.05	s 12.01	s 6.59	35.90	†Summit Cabin....	7.01	11.17	2.00	6.00	7.13	10.30	1.30	4.30	7.30	10.10	
8.32	5.32	2.32	11.32	8.16	6.08	12.03	7.01	36.52	†Paraiso Jct.	6.52	11.09	1.52	5.52	f 7.05	f 10.22	f 1.22	f 4.22	f 7.22	f 10.02	
f 8.39	f 5.39	f 2.39	f 11.39	f 8.23	6.16	12.11	7.09	39.77	†Pedro Miguel	s 6.50	s 11.05	s 1.50	s 5.50	s 7.03	s 10.19	s 1.19	s 4.19	s 7.19	s 9.59	
s 8.41	s 5.41	s 2.41	s 11.41	s 8.25	s 6.18	s 12.13	s 7.11	40.15	Miraflores	s 6.45	s 11.00	s 1.45	s 5.45	s 6.58	s 10.14	s 1.14	s 4.14	s 7.14	f 9.54	
s 8.46	s 5.46	s 2.46	s 11.46	s 8.30	s 6.24	s 12.19	s 7.16	41.66	†Corozal Jct.	6.39	10.54	1.39	5.39	6.53	10.09	1.09	4.09	7.09	9.49	
8.52	5.52	2.52	11.52	8.36	6.30	12.25	7.21	43.86	†Corozal	s 6.38	s 10.53	s 1.38	s 5.38	s 6.52	s 10.07	s 1.07	s 4.07	s 7.07	s 9.47	
s 8.53	s 5.53	s 2.53	s 11.53	s 8.37	s 6.31	s 12.26	s 7.22	44.16	Camp Diablo.....	s 6.35	f 10.50	f 1.35	f 5.35	f 6.49	f 10.04	f 1.04	f 4.04	f 7.04	f 9.44	
f 8.55	f 5.55	f 2.55	f 11.55	f 8.39	f 6.33	f 12.28	f 7.24	44.84	†PANAMA	6.30	10.45	1.30	5.30	6.45	10.00	1.00	4.00	7.00	9.40	
9.00	6.00	3.00	12.00	8.45	6.40	12.35	7.30	47.07												
P. M.	P. M.	P. M.	P. M.	A. M.	P. M.	P. M.	A. M.		Arrive	Leave	A. M.	A. M.	P. M.	P. M.	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.

3

U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY

WASHINGTON

MAY 22 1913

RECEIVED

December 31, 1912.

191

Respectfully referred to:

E.A. Schwarz.—3.

No. 42. Near Panama City. Found also in other localities.

No. 43. Road to Corozal, C.Z.

No. 44. Slope of Ancon Hill, C.Z. on a plant of the genus Arum.

No. 45. Taboga Island. Nov. 1912. Also in other localities.

No. 46. Las Sabanas, C.Z. Aug. 1912. In dung.

No. 47. Las Sabanas, C.Z. Aug. 1912. In dung.

No. 48. Las Sabanas, C.Z. Aug. 1912. On the ground.

No. 49. Taboga Island.

No. 50. Road to Corozal, C.Z. Sept. "

No. 51. Road to Corozal, C.Z.

No. 52. Road to Corozal. C.Z.

No. 53. Road to Corozal, C.Z.

Return this slip with your reply.

5-1549

CSM/bk

JAN 1913

March 9. Old Pto Belle

Paromatus } under bark
Lepidus }

Ceryan in Arum flower, Diopsis also

Unknown Cryptopodid.

Cassidid

Scutiger

Erotylid

Colaspis

Cistid

Cistid

Mr. E. A. Schwarz

February 24th

House 52

Room 10

Febr. 25th

Pselaphid
 Otidomyzodina
 Bembelid - ? Acacia
 Tenebrionid
 Carida - Convoluta
 Carabid.

In fungus

From old banana leaves
and bushes

2 Treehens

Hemiteles

Clytus (broken)

2 Leptarini

Histerid

Gyrophæna

Stilpnid

near Scutiger

? Endomyzod

? Osorius

On bark

Colydiidæ 2 in number

" probably a first passage (unique)

Several Lixidæ

At least two Læmprophæus

2 Salpingid (in number)

1 Xanthopus

1 near Homalota

1 Ichneumon

1. Cossus

3 Forficulidæ

2 Colydiid under
 bark of old fig tree
 2 Green Leafhopper on
 broadleaf Solanum
 2 Platysoma under old
 fig bark

1 Endomyzod

1 Rhizophagus

1 Cyphonid

1 Genus near Telephorus

1 Gyrophæna & black Aleocharid
 in blackish fungus

Cirindelidae

Burst took a single specimen

Carabidae

Quite a number of tree-inhabiting species. Agria only 2 specimens. In wet places a Tachys a Bembidium and one or two smaller Hapahid species. Under bark Tachys is common.

Dytiscidae

Only one specimen a Laccophilus has been seen.

Hydrophilidae

Some Philhydrus and allied species, a Chaetanthia and a Crenophilus

Sphaeridiidae

^{and allied genera} Ceryon, probably several species in rotten wood at least moist flowers and in wet ground not rare. Other Sphaeridiidae Dactylotenus rare

Palpidae

Quite a number of species but specimens are rare excepting Arthmices. The latter occur where a moist place can be found

Syrphidae

On the genus Euclyptus possibly 2 or 3 species have been found

Scaphidiidae

One or two species of Toxidium and possibly two small species of Scaphisoma. None of the larger species seen

Phalacridae

Some small species extremely abundant

Corylophidae

Specimens of Sacium are plentiful also Corylophus

Coccinellidae

Small species of Scymnus are plentiful; not known how many species represented.

Hyperaspis occurs ~~but not~~ in several species. Cephaloscytus extremely rare, possibly 2 or 3 species. Chilocorus ^{not seen} and ~~not~~ Some of genera peculiar to Central America occur but none of the very large species seen. One species of Epilachna, probably a variety of E. borealis occurs sparingly. In the almost complete absence of Aphids and Coccids it is difficult to know what supply of food the insectivorous portion of this family has here. Leaf-hoppers about and colonies of young larvae are not difficult to find but I never saw a Coccinellid larva among them. On the other hand single Coccinellid larvae (a Psylloroid and Scymnus) can be beaten from various bushes on which no leaf-hopper colony can be seen

Languridae

Medium sized and small species especially the genus Crotchia extremely common on green and dead bushes

Eurytomidae

Very few of the larger genera such as Megalodorus of the smaller Triplacidae a few species including two found in colonies in fungi growing on logs.

Colydiidae

Not more than 6 or 7 species now in numbers. Bark collecting exceedingly rare in the zone.

Most of the species found are unknown to me

Cucujidae

A single Scabiosa, 3 or 4 Laemophloeus. Telepharus very common but not many species mostly on dead Banana ~~leaves~~ ^{stems}. A genus near Telepharus also not rare on Banana ~~leaves~~ ^{stems}. Silvanus several species quite common partly under bark. S. nitidus quite common on bushes.

Cryptorhynchidae

Tomarus sp. exceedingly common on dead Banana ~~leaves~~ ^{stems}. Several species allied to Phoraxonotha common on bushes

Monday, March 6, 1911

Porto Bello - Took the morning train from Panama to Colon. Had to walk to Dock 13 but caught the "Porto Bello" which brought me to Porto Bello at 12.30. Busck went to Panama with the return trip of the boat. Made a little excursion back of the old Fort but did not find much of consequence.

Tuesday, March 7, 1911

Porto Bello. A.m. went over to Old Porto Bello along the road to Gatun. Went down into the hollow below the old camp and beat the bushes and collected under bark of the old tree below the trail. Went into the heavy timber above the clearing and beat the bushes. Many new things were caught. The trail I took is possibly the old Colon trail. All Hymenoptera taken to-day (except the very large maculate ones which occur in Heliconia) are from palms. On vines in the dark forest 2 specimens of a ² Salpingid. An unknown bluish beetle (2 specimens) from bushes below the old camp. Under and within the bark of the log below the big fig tree a Scarabaeid larva is common and since I found there an imago of Ataxinices, the larvae may belong to this genus. The two small Diptera are from the rolled-up Heliconia leaves.

Wednesday, March 8, 1911

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Porto Bello - Went again to Old Porto Bello to the clearing above the camp on the Gatun road. There was much rain to-day and the felled trees did not produce much besides a number of Cerambycids. A Cyclocephala or Pheidole appears to be common, 2 specimens in the flower sheet of ——. A tolerably large yellow Chrysomelid with brownish stripes commences to be extremely common flying about at the edge of the clearing. Collected a great many specimens among them 2 small things of which I do not know the families. A fine red Clerid with black humeral spot from dead branch; a red Coccinellid (hairy) from bush; a steel blue Cephaloscyenus closely resembling that blue spider, etc.

Thursday, March 9, 1911.

Porto Bello. Went a.m. to Old Porto Bello on the Colon Trail. Collected some time under bark of felled tree: Curculionid larva ^{and pupa} and some other larvae preserved. Took the butterfly net among the low plants with good success. Heavy rain at about 10 o'clock. Went above the ^{old} clearing into the woods and found by beating the wet bushes and more especially the palm leaves some good things: two Cistelids, a big Colaspis, a fine weevil and ² small very elongate ² Cryptophagid. Went a little farther up the road and found 2 Eurytomids and a large Carida (♂ ♀) on the plant. Found ² colonies of a Carida larva on a plant resembling Castor oil plant and preserved some. The Arum plants commence to be in flower; found yesterday two specimens of a Cyclocephala in the lower compartment. Some of the flowers have been eaten into by some unknown animal, possibly a cricket and

The wounded parts attract many Diptera including the genus *Diospis*. Inside I found a *Ceryon* and saw a little *Staphylinid* resembling *Euchorus*.

Friday, March 10, 1911

Porto Bello. — There was no rain to-day. Went up to the 3rd Spanish Fort. The locality is not very favorable for collecting. Still some new things occurred. In a soft white fungus (or rather mushroom) a number of *Tyrophæna* (apparently two species) an *Aleocharid* near *Homalota* and some *Ischyro* (another species was beaten from a dead palm leaf) occurred. Two specimens of a fine *Malthodes* occurred singly, also two *Eucnemidæ* and some fine weevils including a large *Stenhydrus*. ~~R.V.~~ A reddish *Endomychid*, a small black beetle, unknown to me. A blue *Coccinellid* (with two darkened spots) is the enemy of the brown *Lecanium* that infests one of the *Ligustrum* bushes on the "campus". Its larva looks very much like a

Dactylopius. Packed a cigar box of pill boxes for Dr. Howard. Mailed the box on Saturday, March 11, 1911.

Saturday, March 11, 1911

Porto Bello — no rain to-day. Went on the Colon road at Old Porto Bello collected a little under horse dung (one day's old) finding about 10 species (2 *Staphylinids*, 2 *Ceryon*, 1 *Aphodius*, 1 *Copris*, 1 *Elaterid* and 3 other *Sarcophagids*). Collected a little with the butterfly net. Then went into the timber above the old camp. Found two small *Hispid*s quite new to me (one with blue elytra and red thorax, the other black; elytra ornamented with yellow)

in the folds of an unopened palm (*Attalea*) leaf, which I had cut yesterday. There are quite a number of species new to me beaten from palm leaves and the low bushes at the place; Small *Anobiid* near *Cænovera*, 3 species of *Elaterids*, a very elongate thing near *Xylophilus* (?) etc. etc. Found some more *Cassidid* larvae on the "Castor oil plant". A *Beet* from a palm leaf (which had been prevented from opening by a tangle of vines) the bright-red *Hispid* with black thorax and what may be its larva. In the campus at Porto Bello found again an *Azga* feeding on the *Ligustrum* *Lecanium*. Unsuccessful attempt at conciliation with Busck.

Sunday, March 12, 1911

Porto Bello no rain to-day. Repeated the excursion of yesterday. Beating the lower plants with the butterfly net produced some good things. A large banded *Hispid* in rolled-up leaf of *Heliconia* with red stem. Another small reddish species possibly from underside of *Heliconia* leaves. On the clearing a few *Cerambycidae* new to me; a beautiful *Cis*; an *Eleusis* or allied genus on the old leaves of one of the felled trees. Saw one of the long-legged *Zygopids* but it flew away rapidly, just like many other fine things that escaped me to-day. Among the weevils there is an *Anthrenus* beaten from bushes and apparently new to me. The large *Chelonarium* occurs apparently very rarely on bushes in the darkest part of the timber. Mr. J. F. Cleveland, Oneonta, N. Y. Prof. Hugo Kuerschner, El Clear View, Hyattsville, Md. Otto Wehner 3361, 18th St. NW, Percy W. Haverstick, 367 So Station, Boston, Mass. E. W. Wall, U.S. Nat. Mus. W. R. Hobbs, Paraiso

Monday, March 13th 1911

Porto Bello - Sent three packages to Dr. Howard Nos 25, 26, 27, with list of contents. Packed my traps. No collecting. Heavy rain in early morning.

Tuesday, March 14th 1911

Paraiso - Left Porto Bello at 1 p.m., reached Colon before 4 p.m. Saw Mr. Fichtig and bought photos. Took the 4.35 train for Paraiso.

Wednesday, March 15, 1911

Paraiso - Arranged my traps etc. in p.m. excursion to Hospital Hill ascending and descending by way of the ravine. Everything very dry. Collected in the few Heliconias and found a Hispid larva way down near the root of the plant between the leaf sheaths. Unfortunately I cut the larva to pieces. Found a very small Calandrid beetle within the dried up leaf stem of Heliconia. Collected on a dry, thin fungus on a dead tree a beautiful, entirely black Anthrid. A few Tembrionid larvae within this fungus were eaten up by the house ants upon my return. A large Bruchus occurred on the screen in front of my room.

Thursday, March 16, 1911

Paraiso - Went out early in the morning to the hill plantation and beat the bushes among the rocks above Pan Wernu's orchids. Found some good things: 3 specimens of a Tachygonus, 1 Chrysobothris, 1 Xylophilus, a few small Anobiids, 2 fine longicorns, a Chalcolepidius (flying in the sun) 1 Agra. As a whole the insect fauna is getting scarce. Collected also some

Large Calandrid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Scaphid

Took the noon train for Panama, dined with Jennings and

Dr. Canfield and returned with the evening train to Paraiso

Little Goby bird
" Sculpin
Sculpin 2
Sculpin small
" large
near Little Goby bird
" Rhinoceros
" Lathrop
" Barbed wire (large)
Spotted Rhinoceros
Litangus
large Goby bird
Plocamus
Synchita
Spotted Rhinoceros
Corticaria
Rhinophloeus

Anthracinus
Calandria
Sculpin
Sculpin
Barbed wire (small)
large Goby bird (near same 10)

H W Lewis

Paraso

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Thursday, March 16, 1911

Paraiso - Went out early in the morning to the hill plantation and beat the bushes among the rocks above Mrs. Warner's orchids. Found some good things: 3 specimens of a Tachygaster, 1 Chrysobothris, 1 Xylophilus, a few small Anobiids, 2 fine longicornes, a Chalcolepidius (flying in the sun) 1 Agra. As a whole the insect fauna is getting scarce. Collected also some

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Hymenoptera in unopened Heliconia leaves, and two species of Belonuchus in the water-bearing flowers (or seed receptacles) of the very tall Heliconia. Returned at 2 p.m. and shortly afterwards Mr. Jennings called and remained nearly until 5 o'clock. - Mailed package no. 28 (Lecanium nigrum on Cape Jessamine brought me by Mr. W. R. Hobby). Promised to send a Tool-kit to Mr. H. W. Lewis who was kind enough to fix the lock of my trunk.

Friday, March 17, 1911

Went to the valley below the cemetery and found a mine of Coleoptera by scraping with my hands the underside of a prostrate log onto the umbrella. The most common species is a Saccium (perhaps several species) which occurs in enormous number of specimens. I thus collected upward of 17 species among them 2 Colydiids, 1 very small Scolytid, several Laemophloeus and a genus near by; Lathropus; a spotted Silvanus or allied genus, Rhinophloeus, Synchita, Litargus, genus ~~aff~~ Salpingidus; These are all in a separate box (the Anthrenus, Calandrid, Saccium, the Staphylinid and the smaller Psephenid are from other trees). The top of this tree with the leaves still adhering furnished another Colydiid (the genus with big eyes, emarginate hind margin of head; very active species moving about like a Clid) some Lagochirus and an Acanthodes.

Took the noon train for Panama, dined with Jennings and Dr. Canfield and returned with the evening train to Paraiso.

Saturday, March 18, 1911

Paraiso — Went into the valley behind Hospital Hill and first beat the bushes. Brownish Hispid from a tangle of hut palm leaves. Followed the creek to the place where the felled trees are; collected a little under bark (*Laenophloeus*!). Lost the steel frame of the butterfly net! In p.m. went to look for the net but failed to find it. Beat the young shoots growing on the tree stumps; found many good things but lost my best bottle!! Very large Scolytid on growing vegetation but close to felled tree. There are quite a number of small Buprestids out now. Took a fine *Sylophilus* and a beautiful very small weevil. Almost lost my house.

Sunday, March 19, 1911

Paraiso. Stood at home in a.m. waiting for Jennings and Dr. ^{H.} Canfield. Jennings came with the 11 o'clock train and we went behind Hospital Hill where I showed him the collecting by scraping ^{Hill} the underside of the felled log. In P.M. we went up to the Plantation where Mr. Werner showed us his orchids and other things. Did not collect anything, but from a few rotten bananas and the rind of a papaya made a trap.

Monday, March 20, 1911

Paraiso — K.M. Went behind Hospital Hill and scraped the felled logs again, but this fauna has become poor and I did not find anything new. Beat some other dead branches and green shoots

with very moderate success. It seems that late in the forenoon and in the early afternoon insects can not be found so readily than in the morning and toward evening. P.M. Went up to Hill plantation, collected a little in the fruits of the broad leaved *Heliconia* and examined the fruit trap, finding a fine *Opatrinus*. Found a male flower of *Attalea palm*, almost too far advanced for insect life but still many thousands of specimens were among the pollen loaded parts of the flowers which together form a sticky mass. 3 species of *Cercalonids* (among them a *Manus* and a very immature form which may be a 4th species), 1 *Carcinops*, 1 *Onabium*, 1 (or more) *Medon*, several *Homalotas*, 1 *Smicrops*, 1 (or two) *Erichsonius*, 1 *Orthoporus* (very rare) 1 pale *Psitidulid* looking like an *Epuraea*, 1 *Xanthopygus*. Took some of the material home.

Tuesday, March 21st, 1911

Paraiso. Went to Panama and saw Dr. Canfield and Jennings. Went to see Col. Gorgas but saw only Col. Phillips who promised to let Jennings join us. Jennings and myself returned to Paraiso with the 10.45 train and in the p.m. we went up to the Hill plantation where I showed Jennings the mode of collecting among the *Attalea* flowers. Found a fine weevil in the fruit trap also an *Onabium*, a *Cercyon*, an *Epuraea* and a black *Colastes*. Received invitation from Mr. Chas P. Crafts, House 30 Corozal to visit him tomorrow.

Wednesday, March 22, 1911

Paraiso. Took the noon train for Corozal where I met Jennings and Mr. Char. P. Crafts. We went on the road toward Miraflores until we crossed the Cardenas River where we did some collecting. The scrubbery along the river is comparatively poor in insects and the whole region badly tramped by cattle. Returned to Paraiso at 6 p.m.

The large Bruchus was quite abundant this morning on the inside of the screen at the hospital. [This Bruchus comes from big Acacia pods from Old Panama].

Thursday, March 23, 1911

Paraiso. Took the noon tray, with Mr. Jennings, to Matachin (Dr. & Mrs. Canfield going along as far as Empire) took lunch with Mr. & Mrs. Aubrey and I went along the Las Cruces trail as far as the first creek which was nearly dried up. We fixated at two places: the fauna was very poor: I found a Dytiscid probably a *Laccophilus* and Jennings a *Bidessus* or so. Three or four Hydrophilids (some of them very wild flying). A very small Elaterid (2 specimens) were among the wet stuff and Jennings took a *Bembidion*. On our return went through the rubber plantation. Met Busck on the train on his return from Porto Bello, he reported Colon to be afire.

Friday, March 24, 1911

Paraiso. Packed 4 packages Nos 29 to 32 and mailed to Dr. Howard, in the forenoon. Jennings came out with the 1⁵⁰ train and brought a newspaper man along (Mr. Bulley (?) from the "Outlook"). There was of

course hardly any collecting. We went to look at the Sanitation work behind Hospital Hill and then to the Hill plantation. I looked into the Attalia flowers and found that none of the bigger weevils were present but the smaller species seemed to be just as numerous as before. There was also a *Heilipus* and a ^{medium-sized Tenebrionid} ~~Acacia~~ in the cavity, no doubt accidentally. Looked at the fruit trap: a considerable number of the common *Rhodobaenus*, *Colastes* and other *Hirtidulidae*, little *Staphylinidae* and two specimens of a vice? *Belonuchus*. Serious break with Busck.

Discovered that the large Bruchus on the wire screen before our room really came from the big Acacia pods collected at our Old Panama trip. Found an *Alecerodes*, l.p. and i, on a vine near Wiener's orchids.

Saturday, March 25, 1911.

Paraiso. Mailed packages 33 and 34 to Dr. Howard. General overhauling of vials etc. on the table. Jennings not having made his appearance I went alone to Frijoles with the 11 a.m. train. Followed the connecting railroad track for about $\frac{3}{4}$ of a mile then took an old trail into the bushes. A yellow Haliid was quite abundant here on various bushes. The brush is a wilderness of the Giant Heliconia and by beating the frust masses I found quite a number of Coleoptera in them. They are as follows: ~~Dacty~~ *Dactylosternum* sp. quite common; *Ceryon* sp. quite common; *Belonuchus* sp., not rare; ^{medon sp., rare} *Erchomus* sp. not rare and a single *Hololepta*. Beating the bushes and thickets produced not many but some good things notably a *Pselaphid* resembling an *Edaphus*, a fine brownish Tenebrionid (?) quite unknown to me, a very elongate Cryptophagid, a Zygopid, *Conotrachelus*, two *Cossoids* etc.

A male flower of the Panama hat palm produced nothing but had attracted a large number of Melipones. On a flat fungus (orange-colored when fresh) an Eurytomid and several specimens of Archimophila and two minute Gyrophaena.

Sunday, March 26, 1911

Paraiso. Went to Panama with the 8.25 train to get a good breakfast but returned with the 10 o'clock train. Went at once into valley behind Hospital Hill and looked at the old flower bunch of an Attalea palm which had opened (or was cut open by somebody) two days ago; the flowers represent an extremely sticky substance with no trace of pollen; the smaller Attalea insects were there but in much smaller number. ^(There is possibly another small notidulid allied to Spiraia) no trace of the big yellow weevils. Beat a little the green vegetation and found on the underside of very young Spinous Palm a small bluish Hispid (3 or 4 specimens), quite new to me also a reddish Hispid which may be or not new to me. Found a fine Cryptorhynchid on a branch of a felled tree. In p.m. went up to the Mill plantation but did not see Mr. Warner. In looking at the old Attalea flower bunch I noticed that most insects have disappeared; still many of the small weevils are present; I found also a second specimen of the listelid like Tenebrionid. While beating that old nest mass of the hat Palm I found a specimen of Megalops and two of that great Coryphoborus. In beating the green shrubbery at the edge of the cleared spaces I found a fine Zygopid. The underside of the hat palm leaves furnished a specimen of Onota and one of that brown Hispid. Collected some pods to be sent to Washington and in one of them;

a very large vine with bluish flowers I found one specimen of a beautiful Broussier (this has been sent to Washington in the box containing unsprayed pods of the same vine). — P.S. There may be two species among the small Hispids from the Spinous palm; the red Hispid from same plant may be different from those living on Heliconia.

Monday, March 27, 1911

Paraiso. Went with Mr. Jennings with the 11 o'clock train to Frigides but the expedition proved to be a failure from the start, Jennings losing his collecting forceps, and in spite of more than one hour's search we failed to find it. Beat the fronds of the Giant Heliconia, lost a little Histerid; but collected a few specimens of the Hemicriptus found under these circumstances. Beat a little the water bearing frond of the Heliconia (with bright orange colored fruit) and found that the fauna does not differ from that of the Giant Heliconia. In one of the more mature fronds which carries less water I found a number of Trichopteryx and some small Staphylinidae. A little dried up creek along the railroad looked like a good collecting ground but I found only a solitary specimen of a Chaetanthia.

Tuesday, March 28, 1911

Paraiso - Jennings came out with the 11 o'clock train and we went into the valley behind Hospital Hill. For the first time Jennings did his own collecting using the butterfly net and a beating stick. We beat the small green bushes, the young growth on the old stumps and the dead branches. I found again the Hispids on the underside of leaves of young Spinous Palms; they do not seem

to occur on the older trees. There are certainly two species among them. Found a fine *Stenus* and an *Agilus* on dead branches. Some little *Scolytids* make now their appearance but where they breed has not been ascertained. The genus *Hypothemus* gets also quite common. Jennings caught on my coat a beetle which probably was something very good; it must be in his collections.

Wednesday March 29th, 1911

Paraiso - Jennings & myself went with the 11 o'clock train to San Pablo and collected at the banks of the Chagres. The bed of the river is here flat with broad sand and gravel banks. The sand, when wet is like a very fine yellow mud, when dry it is extremely fine. Not many sticks and twigs are on the banks. The fauna does not differ essentially from similar localities in the States; there are no *Bembidion*, no *Platynus*, no *Hydrophilids* etc. in fact the fauna is comparatively poor but this may be the fault of this particular locality and perhaps owing to the fact that the River is muddy, the mud being thrown into it by the Canal people. Moreover there is not a bit of shade at this place and collecting has to be done in the glare of the sunshine. We collected 22 species of Coleoptera as follows: *Tetracha carolina* (under caked mud 2 specimens); *Cicindela* sp. (*Chirina* sp. (1 spec. with Jennings); *Chirina* sp. 2 spec., *Tachys* sp., *Pericompus* sp. *Tachys* (?) one specimen with Jennings; *Agonoderus* sp. (1 spec.); *Oodes* sp. and *Anchoderus* sp. (both very common in very wet ground); *Actobius* sp. (1 spec.); *Xantholinus* sp. (1 spec. under dried cow dung on dry sand); *Stenus* sp. (1 specimen); *Stenus* sp., *Cryptobium* sp., *Cryptobium* sp., *Lathrobium* sp. (1 specimen); *Scopaeus* sp., *Parnus* sp. (exceedingly common even under dried sticks, etc.); *Ataenius* sp.; *Pyropyga* sp. (not rare crawling about in the shade of the pebbles); *Anthrenus*

sp. (once specimen with *Xantholinus*). Were invited by Mr. Pickle the Sanitary Inspector to call again. Took the afternoon train to Colon, looked at the launches for Toro Point and returned to Paraiso with the evening train.

Thursday, March 30, 1911

Paraiso - Jennings came out with the noon train and we went into the valley behind Hospital hill, beating the young growth on the stumps. Various good things were found. Jennings found a red *Hispid* which I did not find before. It is no doubt a palm inhabiting species. He got also some other good things.

Friday, March 31, 1911

Paraiso. Excursion to Toro Point with Jennings who took two *Chrysomelids*, which I did not take [Hoda and genus like *Metachroma*]

Saturday, April 1st, 1911

Mr J. D. Christopherson called in the morning and brought two *Otiorynchids* & q from Mt Hope. I gave him quite a lengthy lesson on Entomology. Went to Panama with the noon train and returned in the evening. No collecting to-day.

Sunday, April 2, 1911

Paraiso: Jennings not coming out to-day I went alone in a.m. into the valley behind Hospital hill; my principal object being to find the *Hispid* which Jennings found there on March 13. But I utterly failed though beating a great variety of plants. I found, however, various acceptable things notably a fine *Hyperaspis*; 3 species of leaf-mining *Buprestids* etc. A large *Cetoniid* came flying on my cloth. In p.m. went up to the Hill plantation, saw Mr. Womers for an instant who told me that the name of the Scale-insect

Orchid is *Maxillaria*. Looked a little in the forest of the broad-leaved *Adiconia* and in the trunks of the felled trees which still retain their moisture and have put out fresh shoots. Here I found a small Histerid and one specimen of - - Found a *Scymnus* feeding on the *Aleodes* of which I sent specimens to W. Beat the green bushes etc. on the slope of the hill. Looked at the old *Attalea* flowers; the small weevil is still there but can now be found on Mango trees and elsewhere. On the Mangos I found a series of an *Anobiid*, the specimens being mostly in copulation. Found two specimens of a *Bruchus* on a tree (probably a cultivated one) - one escaped.

Monday, April 3rd, 1911

Paraiso: Jennings telephoned that he could not come out to-day so I went at 10 o'clock up to Plantation. There was a little rain this morning but the air was very heavy. Did not find much by beating the bushes on the hill: a fine *Hinus*, a *Pachydrus* and a fine blue *Cephalorygmus* with yellow legs. A few very small *Aleocharids* in the folds of a young Panama palm leaf. Looked at the pile of old *Attalea* flowers and found larva and pupa of the small weevil, also plenty of imagoes of same, all immature. Also found two carnivorous *Coleopt-larvae*, possibly those of *Modon* among the flower stems. Collected a box of the spinous fruit (having red seeds) from the tree near the hut. Collected also some of the large pods of the big vine and found a couple of the *Bruchus* in them. Mailed to Dr Howard, packages 39, 40, 41 - Mr. Jennings went to Gatun to-day and collected a

number of insects including a *Throscus* and a *Scyrtes*.

Tuesday, April 4th 1911

Paraiso. - Took the 7 o'clock train to Culebra and spent the forenoon with Pittier and Maxon. Returned with the noon train just in time to escape a big rain shower. Mr. Jennings came out with the 2 o'clock train and we went over his collecting from yesterday at Gatun. During this business another rain storm occurred. No collecting to-day.

Wednesday, April 5th 1911

Paraiso. Took the 7 o'clock train to Panama to give Goodbye to Dr. Canfield and came out again with the 11 o'clock train. Heavy rain from 1 to 2 o'clock. Went out behind Hospital Hill but was caught by another shower. Scraped the underside of the prostrate log, where a small, smooth *Aleocharid* (somewhat allied to *Microsera*) occurred in some number; the top ends of this log furnished a number of the "4-spotted *Tonnarus*"

Thursday, April 6th 1911

Paraiso. - Went out at 7 o'clock a.m. to Plant Hill Plantation. Everything wet from yesterday's rain but the vegetation is somewhat revived. Found one specimen of that entirely red Histerid which Jennings took the other day but on what is certainly not its food-plants. Beat the bushes behind and above Warner's house: 1 *Tachygonus*, 1 *Cephalorygmus* (blue with red spot on each elytron) 2 *Aleocharid* in moist surface of cut tree; 3 species of *Bruchus* (one from spinous seeds sent to W.); 1 *Belagid* (or *Staphylinid*) 1 *Cuculionid* near *Piazurus*.

Friday, April 7, 1911

Paraiso. Went with Jennings with morning train to Bohio, crossed the Chagres and looked carefully on the leaves of water lilies in the "lake". No trace of *Donacia* to be seen, only a rather small brownish fly. The shrubbery along the lake does not seem to harbor many insects: a larger handsome *Halticid* was not rare. Under the moist debris is quite a distinct fauna: 2 *Sphaeridich*, *Carabids*, several *Pselaphids*, a *Seydinaenus* and an *Anthicus*. Met Dr. Meek on the depot (also Col. Gaillard ^{at} the Lake) and went with him to Gatun, where we met Goldman. Took lunch at the Commission Hotel and went to the first timber along the Colon track. These woods are quite different from those near Paraiso; a nest building ant (nest very much like that of *Eutermes*) is extremely troublesome. Fauna also different in many respects but radically different from that of Porto Bello. This piece of timber is quite low and probably quite impossible during the rainy season. Jennings used his net as a beating net on the swampy open place.

Saturday, April 8, 1911

Paraiso. Went with Jennings with the noon train again to the Lake at Bohio and sifted the wet leaves but it rained heavily the whole afternoon which greatly interfered with collecting. There was a little shelter beneath the corrugated iron roof of the hydrographic's wheel. Fished a little in the lake but there is hardly any aquatic insect fauna. Took a sackful of wet stuff home.

Sunday, April 9, 1911

Paraiso - Went to Panama with the 8²⁸ a.m. train to have a good breakfast and returned with the 10⁰⁰ a.m. train. Sifted the sack of wet leaves I brought yesterday from Bohio. There were not many specimens in the material but several additional species notably a small *Dytiscid*. In p.m. went up to Mr. Werner's plantation and talked with him on various subjects, but did no collecting.

Monday, April 10, 1911

Paraiso - Packed three packages, 42, 43, 44 for Dr. Howard. Jennings came out with us with the 11 a.m. train and we went behind to the valley behind Hospital Hill. Found on dead branches, as were *Anthicus* (2) and an *Acanthocerus*. Discovered that there was now a fauna beneath the old leaves and found there a fine big *Pselaphid* and several *Staphylinidae* which seem to be good. Found two specimens of a small *Dominicid* on the screens within our house.

Tuesday, April 11, 1911

Paraiso. - Went alone up the Ravine from Cemetery where I have not been since several weeks. - Sifted over the sack of wet leaves I carried back from Bohio and found a number of specimens, including a *Staphylinid* allied to *Hypotiles*. Investigated my old hay trap and found some delicate *Pselaphidae*. Near the top of the ravine investigated rotten log with fungus growing on it. A lot of *Gyroneurids*, 2 *Scaphisoma*, 1 very small brown *Cercobionid*!!, 3 *Sychraenus*, 1 *Eutomychid*, 1 large red *Eurygid* - all on this log. - My p.m. excursion into the valley behind the Hospital Hill was spoiled by a heavy rain. On looking

on the leaves of the shrubbery I collected 3 species of Chalcids and one rather large Chlamys. Attempt to sieve interrupted by the heavy shower. Tried to collect under bark of the prostrate log; a Cossonus, abundant; 2 Parornithus and one Staphylinid. One small Bruchus from the wet shrubs.

Wednesday, April 12, 1911

Paraiso - Went to Panama with morning train and with Jenkins in the suburbs near Orphan Asylum where a new road had been cleared through the low shrubbery. Aside of a black Conotrachelus only the usual fauna could be found but on a tree which was badly injured by fire and axe many good things were found and at the end I cut out from a twig a big Xyleborus (only one straight hole, twig only about half-an-inch in thickness. Some other good things were found on other trees and Jenkins with his butterfly net got some additional species [Among the species found by me: Colydiid, Læniophloeus, Aphelocymus, Pissinus, Scolytids 4 species, Catorama, Mordeletina]

Thursday, April 13, 1911

Paraiso - Went again to Panama and with Jenkins went down the R.R. track a short distance where we crawled through the fence into a jungle close to a bad-smelling ditch. I did not find ~~any~~ very much; a fine Anthrenus, a brownish Apion, a fine Cryptorhynchid etc but Jennings got quite a number of good things especially Rhynchophora.

Friday, April 14, 1911

Paraiso - This day being holiday - Good Friday - I went alone along the Relocated P.R.R. track as far as the large creek that crosses the R.R. beneath a gigantic trestle. Looked a little under bark of a Ceiba tree cut by the R.R. operation, then went down to the creek and sifted the wet leaves along the stream. Fished sometime with water net in the creek and got 2 specimens of a small Dytiscid. Recrossing the trestle found a dead tree, cut and burned but with leaves still adhering and beat a lot of fine things from it. A little ^{farther up} ~~lower~~ the creek found another cut tree and from the underside of the trunk scraped a Xyleborus and a fine longicorn near Elapstadon. There was no rain to-day but the sky was cloudy the whole day.

Saturday, April 15, 1911

Paraiso - Went with the early train to Panama where I met Mr. Jennings. Hired hack and went to the "Bathing Beach", about one mile down the coast. There is a Girardinella on the beach and Jennings also caught that Anthrenus [I have not seen the specimen] we found at Toro Point. I found a Epitragus and an Allarda on the trees overhanging the beach. This tree bears an apple-like fruit which is infested by an insect which may be a Coleoptera or Dipter. There is a bridge from near the beach to the Sabana road and along it we found many things which are new to our list. Jennings with his butterfly net was quite effective but I did not see everything he collected.

Sunday, April 16, 1911

Paraiso — My left eye being somewhat inflamed I kept indoors except that I went down to Panama to have some fresh eggs for breakfast. It was raining nearly the whole day. No collecting to-day.

Monday, April 17th

Paraiso — Met Jennings at the morning train at Pedro Miguel and with Mr. Crafts we went up the valley of the Pedro Miguel River, crossing and recrossing the creek until we came above the Kerosened zone. Nothing seem to occur under the stones along the creek although the conditions appear to be ideal for Carabidae, Staphylinidae etc. The valley is well cultivated as far as this term applies for Panamanian circumstances and the shrubbery along the creek does not furnish any peculiar insect fauna. A *Dorcadid* on a flowering shrub and a *Pselaphid* under bark of a big tree are about all worth mentioning from that trip. We walked back to Paraiso and went to Hill plantation where we found another *Attalea* palm apparently just opened. The ear was just within our reach by means of a long stick and proved to be inhabited by a countless number of *Mitridulid* beetles (allied to *Epiraca*). There are apparently two species among them. A species of *Cyclocephala* was also common among the flowers and there were the 3 species of *Cuculionids*, the *Tauricrips* and the *Ondium* and the *Black Hemipter*. Went into the woods back of Werner's house and found 3 good *Platyd* and a small *Cleid* among flat fungus on underside of log

Tuesday, April 18, 1911

Paraiso — Went to the valley behind Hospital hill. Not many things to be found in beating the bushes, but got some good things under the bark of a recently cut branch of an unknown tree, including some *Scolytids*. The ends of the old log furnished an *Atelocerium*. Went to Panama for dinner and no collecting in afternoon.

Wednesday, April 19, 1911

Paraiso — Went early up to Hill plantation to look at the *Attalea* flowers. They have been falling to the ground which is now fairly covered with them. Beating the remainder I got a good set of the big yellow *Cuculionid*, the *Histerid* had made its appearance; in fact the flowers represented the same state of development, as when Jennings and myself found the first ear of *Attalea* flowers. Went into the woods back of Werner's house but lost my time in trying to find the log with the fungi I had piled up on April 17th.

Thursday, April 20th, 1911

Paraiso — Went over to Culebra to arrange home transportation went to dinner to Panama; rain in afternoon. No collecting.

Friday, April 21st, 1911

Went over to Colon to confer with ticket agent P.R.R. S. Co., met Beck on train coming back. In p.m. went to the top of Hospital hill where the trees look green again and found many good things. It seems that various insects have made their appearance in spite of the fact that rains have been scanty.

Saturday, April 22nd, 1911

Paraiso - Went early in the morning again to the top of Hospital Hill and found a lot of good insects by beating the bushes. It is a pity that I can not ascertain the food plant of the *Bracon*. Went to dinner to Panama and Jenkins came out to Paraiso in the afternoon.

Sunday April 23rd 1911

Paraiso - Went to Panama with first Train, met Jenkins and we went out to the lines of ~~wood~~ trees back of the Bathing Beach. Found a number of species new to list. A rain put the end to our excursion.

Monday, April 24, 1911

Paraiso. Went early in the morning to the top of Hospital hill and beat the bushes. The fauna seems to be a little exhausted but a number of a new species were found. The food habits of the various species of *Bracon* can not be ascertained. At noon went to Panama for dinner and upon return attended to laundry matters.

Tuesday, April 25, 1911

Paraiso - Very heavy rain during the night and everything wet in the morning. Went out to cut some section of the large branch of *Ficus* (?) lying on the ground since 3 or 4 weeks. Found under its bark a fine *Lacmophloeus* and on its underside an *Endomydus*. There are at least 2 species of *Scaphitids* under the bark but apparently no inside borers. Went to that old prostrate log and found one dead *Hemiteles* and 2 specimens (one dead) of *Andrenis* and two specimens of a reddish species apparently

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allied to *Palorus*; also an *Acritus*. Went for dinner to Panama. Very heavy and continuous rain in p.m.

Wednesday, April 26, 1911

Paraiso. Rain in the night and everything wet again. Went a.m. on top of Hospital Hill and beat the wet bushes with some difficulty, but found a lot of good things. The fauna has manifestly changed; various species formerly not present can be found now, but hardly any of the species to be found in January and February have made their reappearance. Went to Panama for dinner. In p.m. went in the valley along the relocation below the cemetery but did not find anything of consequence.

Thursday, April 27, 1911

Paraiso - Very sultry and heavy shower lasting until after 12 o'clock. Took the noon train to Panama where there was no rain and walked out to the swampy pasture leading toward the Bathing Beach. Found several good things on the very low bushes but lost a *Stenippa*. Large *Halticids* are here common but exceedingly difficult to capture. Walked to town again and went to Mr. Jennings and at about 8 o'clock looked at the electric lights on the streets of Ancon. These lights are high above the ground but we took 2 species of *Lachnosterna*, one or two of *Chalcids*, a *Phyllostoma*, one or two species of small *Hydrophilids*, *Anthicus floratus*. In addition there were in Jennings' case a ♀ *Megasoma elytra*, a *Meloida* and a *Phileurus*. Did not see his small things. There was a great flight of *Photuris pennsylvanica* on the leaves of *Arundo* the *Tivoli*.

Friday, April 28, 1911

Paraiso - Returned from Panama with the early morning train and attended to the specimens found yesterday but felt very sleepy. In P.M. went to the top of Hospital hill and found various good things by beating the bushes (*Phytomyza*, *Laemosecus*, a beautiful *Egyptorhynchid*, *Symphora*, *Xantholinus* etc.) and discovered that a fauna is now to be found under the old leaves. Many ticks on my body from yesterday's excursion.

P.S. There should be added that very early yesterday morning I found some good things (a *Galerucella* etc.) on the wet banana leaves nearly beneath the electric light back of the Commissary.

Saturday, April 29, 1911

Paraiso. A.m. went on Hospital Hill plantation. Girdled some bushes. Many other good things, new to the fauna on the scrubby bushes above Warner's house. Sifted the accumulated old *Attalea* flowers. Perisited the old cut-down trees with moist bark.

Sunday, April 30, 1911

Paraiso A.m. Went to Hill plantation, beat the old envelope of *Attalea* flower ear and got a number of the small *Cakant* etc., two or three species of *Cryptophagids*, a large number of the large *Caryoborus* and a single *Cistichus*. Above Warner's house beating the bushes I got various new species. Caught a *Meloid* on the screens in the early morning. All *Baridiids* on a flowering shrub.

End of diary

May 1st 1911
Hospital Hill (2 boxes)

May 4, 1911

Valleys around Hospital Hill

May 5, 1911

Am on D.C. ; Paraiso, in tent at night

May 6, 1911 (2 boxes)

Woods above Hill plantation

May 7th 1911

North slope of Hospital Hill.

May 9, 1911 (2 boxes)

Top of Hospital Hill

May 10, 1911 (2 boxes)

Woods above Hill plantation

List of Panama Coleoptera
collected by Aug. Burck, E. A. Schwarz etc.

28

Attelabidae

Attelabus sedatus Shp. Cabima, May 22, '11, B. 1 spec.

" *corvinus* Gyll. Paraiso, Febr. 8, '11, S. 1 spec., Trinidad Riv.

May 6, '11, B. one specimen.

Rhyrchitidae

Eugnamptus n. sp. (parenthesis in Sz.) Paraiso, April 22, '11 2 specimens

. S., April 24, 1 spec., S., April 26, 2 spec., S., April 28, 2 spec., S.,

May 3, 1 spec., S., Taboga Id., June 11, 1 spec., B. - 9 spec. in all.

Eugnamptus n. sp. Paraiso, Jan. 17, 1 spec. S., April 29, 8 spec., S.,

May 6, 1 spec., S., Porto Bello, May 13, 1 spec. B.



List of Panama Coleoptera
collected by Aug. Burck, E. A. Schwarz etc.

28

Attelabidae

Attelabus sedatus Shp. Cabima, May 22, '11, B. 1 spec.

" *corvinus* Gyllh Paraiso, Febr. 8, '11, S. 1 spec., Trinidad Riv.

May 6, '11, B. one specimen.

Rhyrchitidae

Eugnamptus n. sp. (parenthesis Sg.) Paraiso, April 22, '11 2 specimens

.S., April 24, 1 spec., S., April 26, 2 spec., S., April 28, 2 spec., S.,

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Eugnamptus n. sp. Paraiso, Jan. 17, 1 spec. S., April 29, 8 spec., S.,

May 6, 1 spec., S., Porto Bello, May 13, 1 spec. B.

28 Large Hispid and its probably larva in
unopened leaf of broad-leaved Heliconia.

29 Scarabaeid and other larvae from under bark of
dead fig
felled tree, (on the point of the peninsula)

30. Larva and skin of small Epilachna (see imago
and dry vial)

in pill boxes & on bean-like vine
30 ^{original} ^{imago} and pupa skin of small Epilachna. Dry vial. See No. 30

31 Elaterid larvae very abundant ~~in~~ under bark of trees

with No. 29 Old Porto Bello

32. Elaterid larva under leaf base of Coconut tree (on
the point of the peninsula)

33 Eucnemid larva in bark of felled tree (same tree with
Nos 21 and 22)

33^a Pill box with pupa skin and imago of Eucnemid. Pupa
found at exactly the same place with No. 33

34. Lampyrid larvae and probably imago under rotten bark of
log. Paraiso.

35 Cicindelid larva in dead branch of a tree among ants

36 Large Cassidid larvae (one colony) found on plant 36, Colon trail
living larvae still in my possession

37 Unknown Coccinellid found exclusively on the underside of Heliconia leaves
and possibly young larvae

- 28 Large Hispid and its probably larva in
unopened leaf of broad-leaved Heliconia.
- 29 Scarabaeid and other larvae from under bark of
dead big
felled tree, (on the point of the peninsula)
30. Larva and skin of small Epilachna (see imago
and dry vial
in pill boxes on bean-like vine
30 a ^{dry vial} Imago and pupa skin of small Epilachna. Dry vial. See No. 30
- 31 Elaterid larvae very abundant in ~~the~~ under bark of trees
with No. 29 Old Porto Bello
32. Elaterid larva under leaf base of Coconut tree (on
the point of the peninsula)
- 33 Eucnemid larva in bark of felled tree (same tree with
Nos 21 and 22)
- 33 a Pill box with pupa skin and imago of Eucnemid. Pupa
found at exactly the same place with No. 33
34. Lampyrid larvae and probably imago under rotten bark of
log. Paraiso.
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- 36 Large Cassidid larvae (one colony) found on plant 36, Colon trail
Living larvae still in my possession
- 37 Unknown Coccinellid found exclusively on the underside of Heliconia leaves
and possible young larvae

SMITHSONIAN INSTITUTION

Washington, D. C.,

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Copy of Contents of Box 25 sent to Dr. Howard
March 14, 1911

- No. 20. Imago and possible larva of Hispid on palm
(name not ascertained). The larva occurred in an
unopened leaf which was entangled in a vine
- 21 Curculionid larvae in (probably Zycopid) in
bark of a felled tree.
- 21^a 22 Same as No. 21 but from another log.
22. Cryptorhynchid ant its pupa under bark of
felled tree (same tree as 21). Two vials, specimens collected
at different dates but in same log
- 23 Azga, its larva and its food (deciduous on
Ligustrum, See also specimen in pill box
- 24 Lyrid larva taken from bark in dark timber
25. Coccinellid Larva occurring not rarely on trees betw. old
Fort.
26. Miscellaneous, Spiders, Skelly etc., Porto Bello
- 27 Samples of the ticks from Paraiso. The fed specimens
from my own person.

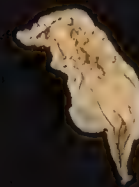
Apr 25

the morning of the 25th of April
the wind was from the north
and the sea was very rough

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April 25





April 25

April 25

Expenses to January 31st, 1911

\$86.08

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F. l 1 Subscriptions Paid 2.00

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Monday

Copy of List of Contents

of Box 15. Sent Feb. 12, 1911

1. A few aquatic insects. Paraiso, Jan. 16, 1911
2. Larvæ }
2^a Pupæ } of a Megalodacne. Paraiso Jan. 1911
2^b Imago } Imago bred first week of February
3. Lepidopterous larva attacking Cotton bolls. Paraiso, Jan. 1911
4. Larvæ of large Arædid Paraiso, Jan. 1911 (imago in pill box)
5. Ant-lion found in ground under our house Febr. 2, 1911
6. Lampyrid larva in grass after dark Jan. 1911 Paraiso
7. Large Mermis found in creek, Jan. 29, 1911
8. Larva of Hololetia under bark of ~~tree~~ filled tree Paraiso, Febr 10, 1911
9. Carculionid larva given by Mr. Pittier and said by him to have been found in
wild
a fig
10. Stylized Leaf-hopper larva (moulded)
11. Dry vial. Leaf of a wiry Solanum with various egg-masses of a
(?) Leaf-hopper. Nothing bred from them. Seem to be parasitized.

Febr. 12th Subsistence Parano 2.00

Febr. 13 Subsistence Parano 2.00

Fee to house servants } ~~3.00~~
for one month } 3.00

Febr. 14 Fee to Polaris & 1st 11th 20

Subsistence Parano and
Porto Bello 2.00

Boat hire Port Noll .50

Jan 86.08

Febr 74

15.8

\$ 16.0

160

45

40

2.45

1.88

~~3.93~~

4.85

April 25

Expenses to January 31st, 1911 \$86.08

61

Febr. 1	Subsistence, Paraiso	2.00	2.00
" 2	Subsistence Matachin & Las Cruces	2.25	
	Boat hire Matachin to Ahajucela & ret.	3.50	5.75
" 3	Subsistence, Paraiso	2.00	2.00
" 4	Subsistence Paraiso and Panama	2.25	
	Laundry	1.00	3.25
" 5	Subsistence, Paraiso	2.00	2.00
" 6	Subsistence, Paraiso	2.00	2.00
" 7	Subsistence Paraiso and Bohio	2.00	2.00
" 8	" "	2.00	2.00
" 9	" "	2.00	2.00
" 10	Subsistence Culebra and Paraiso	2.00	2.00
" 11	Subsistence Paraiso	2.00	
	Laundry	1.00	3.00

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Febr. 12 Subsistence, Paraiso	2.00		
		2.00	
" 13 Subsistence, Paraiso	2.00		
Fee to 3 house servants	3.50		
		5.50	
" 14. Baggage at Port Hope	20		
Subsistence Paraiso and Port Bello	2.00		
Boat hire	50		
	2.70	2.70	
" 15 Subsistence Porto Bello	2.00		
		2.00	
" 16 Subsistence, Porto Bello	2.00		
Boat hire	50		
	2.50	2.50	
" 17 Subsistence, Porto Bello	2.00		
	2.00	2.00	
" 18 Subsistence, Porto Bello	2.00		
Laundry	1.00		
	3.00	3.00	
" 19. Subsistence, Porto Bello	2.00		
	2.00	2.00	
" 20 Subsistence, Porto Bello	2.00		
Boat hire	50		
	2.50	2.50	

Feb. 21 - Subsistence Porto Bello	2.00		
Boat hire	50		
Scatter leggins	2.75	2.50	
Feb. 22 - Subsistence Colon and Panama	2.50	6.25	
Carriage, Panama	50		
	3.00	3.00	
Feb. 23 - Subsistence Paraiso and Porto Bello	2.00		
Carriage, Colon	50		
	2.50	2.50	
Feb. 24 - Subsistence, Porto Bello	2.00		
	2.00	2.00	
Feb. 25 - Subsistence, Porto Bello	2.00		
	2.00	2.00	
Feb. 26 - Subsistence, Port Bello	2.00		
Boat hire	50		
	2.50	2.50	
Feb. 27 Subsistence, Porto Bello	2.00		
Laundry	2.00		
	4.00	4.00	
Feb. 28 Subsistence Porto Bello	2.00		
Boat hire	50		
	2.50	2.50	
Total in February		76.00	
" " January		86.08	
Total Jan. & Feb.		162.08	

fr. 162.08

March 1 Subsistence Porto Bello	2.00	
Boat hire	<u>.50</u>	
March 2 Subsistence Porto Bello & Colon Paraiso	2.50	2.50
	<u>2.00</u>	
	2.00	2.00
March 3 Subsistence Culebra, Panama, Paraiso	<u>2.50</u>	
	<u>.50</u>	2.50
March 4 Subsistence Paraiso	<u>2.00</u>	
	2.00	2.00
March 5 Subsistence Paraiso	<u>2.00</u>	
	2.00	2.00
March 6 Subsistence Paraiso & Porto Bello	<u>2.00</u>	
	2.00	2.00
March 7 Subsistence Porto Bello	2.00	
Boat hire	<u>.50</u>	
	2.50	2.50
March 8 Subsistence Porto Bello	2.00	
Boat hire	<u>.50</u>	
	2.50	2.50
March 9 Subsistence Porto Bello	2.00	
Boat hire	<u>.50</u>	
	2.50	2.50
March 10 Subsistence Porto Bello	2.00	
		2.00
March 11 Subsistence Porto Bello	2.00	
Boat hire	<u>.50</u>	
	2.50	2.50

fr. 25

63

fr. 187.08

March 12 Subsistence Porto Bello	2.00	
Boat hire	<u>.50</u>	
	2.50	2.50
March 13 Subsistence Porto Bello	<u>2.00</u>	
Fee to house servant	<u>3.00</u>	Re. 5.00
	5.00	
March 14 Subsistence Porto Bello, Colon, Paraiso	2.00	
Carriage, Colon	<u>.40</u>	
	2.40	2.40
March 15 Subsistence Paraiso	<u>2.00</u>	
	2.00	2.00
March 16 Subsistence Paraiso	<u>2.00</u>	
	2.00	2.00
March 17 Subsistence Paraiso & Panama	2.00	2.00
Laundry	<u>1.50</u>	
	3.50	3.50
March 18 Subsistence, Paraiso	<u>2.00</u>	
	2.00	2.00
March 19 Subsistence Paraiso	<u>2.00</u>	
	2.00	2.00
March 20 " "	<u>2.00</u>	
	2.00	2.00
March 21 Subsistence Panama & Paraiso	<u>2.00</u>	
	2.00	2.00
March 22 " Paraiso & Grogal	<u>2.00</u>	
	2.00	2.00
March 23 Subsistence Paraiso and Matichin	<u>2.00</u>	
	2.00	2.00

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fr. 40

Fr. 216. 48

Date	Description	Debit	Credit	Balance
March 24	Subsistence Paraiso	2.00		2.00
March 25	Subsistence Paraiso & Frijoles	2.00		2.00
March 26	Subsistence Panama and Paraiso	2.50		2.50
March 27	Subsistence Paraiso & Frijoles	2.00		2.00
March 28	Subsistence Paraiso	2.00		2.00
March 29	Subsistence Paraiso & Colon	2.50		2.50
March 30	Subsistence Paraiso	2.00		2.00
March 31	Subsistence Paraiso & Colon	2.50		
	Laundry from Colon to Toro Point & ret.	2.00		4.50
April 1	Subsistence Paraiso & Panama	2.50		2.50
April 2	" " "	2.00		2.00
" 3	" " "	2.00		2.00
" 4	" " & Culebra	2.00		2.00
" 5	" Paraiso & Balboa	2.00		2.00
" 6	" Paraiso	2.00		2.00
" 7	" Paraiso and Gatun	2.00		
"	" Ferry & boat hire at Bohio	1.00		3.00
" 8	" Paraiso & Bohio	2.00		
"	" Ferry & boat hire, Bohio	1.00		3.00
" 9	Subsistence Paraiso & Panama	2.50		4.00
	Laundry	1.50		276.58
				277.58

April 25

64

27758

Date	Description	Debit	Credit	Balance
April 10	Subsistence Paraiso	2.00		2.00
" 11	" "	2.00		
" 12	Subsistence Parana	2.50		
	Back to Suburb	1.00		3.50
" 13	Subsistence Parana	2.50		
	Back to Suburb	1.00		3.50
" 14	Subsistence Paraiso	2.00		2.00
" 15	Subsistence Parana	2.00		
	Back to Sabana road	2.00		4.00
" 16	Subsistence Paraiso	2.00		2.00
" 17	Subsistence Paraiso	2.00		2.00
" 18	Subsistence Paraiso	2.00		
	Laundry	1.50		3.50
" 19	Subsistence, Paraiso	2.00		2.00
" 20	Subsistence Culabra & Paraiso	2.00		2.00
" 21	Subsistence Paraiso & Colon	2.00		2.00

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FORM X-130

ISTHMIAN CANAL COMMISSION

COMMISSARY COUPON BOOK

ISSUED BY

PANAMA RAIL ROAD CO.

No. 103503 Y

THIS BOOK IS NOT TRANSFERABLE

MUST BE USED WITHIN SIXTY DAYS FROM DATE OF ISSUE AND WILL NOT BE HONORED UNLESS ISSUED BY AUTHORIZED PARTY

VALUE \$15.00

FORM X-130

No. 103503Y

COMMISSARY COUPON BOOK
ISSUED BY

ISTHMIAN CANAL COMMISSION

PANAMA RAIL ROAD CO.

THIS BOOK IS NOT TRANSFERABLE

MUST BE USED WITHIN SIXTY DAYS FROM DATE
OF ISSUE AND WILL NOT BE HONORED UNLESS
ISSUED BY AUTHORIZED PARTY

VALUE
\$15.00

CONTRACT

This coupon book is good for *Fifteen Dollars* (\$15.00) in exchange for commissary supplies when presented by party to whom it has been sold with the agreement on his part that the value of same may be collected on the next succeeding pay day from such pay as may be due him.

It is further stipulated and agreed that this book is *not transferable* and if presented by any other than the subscriber it may be taken up, turned in to *Examiner of Accounts* of the *Isthmian Canal Commission*, Empire, C. Z., and the right to its further use forfeited.

Panama Rail Road Co.,
GEO. W. GOETHALS,
President.

I understand the above and fully agree to its provisions.

E. A. Schwarz

[Employee.]

E. P. Palmer

(Witness.)

FORM X-130.

PANAMA RAIL ROAD CO.

Commissary
Coupon Book

No.

103503 Y

VALUE \$15.00

Issued to

E. A. Schwarz

Employee's No.

Ensl

Issued by

E. P. Palmer

ACCOUNT ISTHMIAN CANAL COMMISSION.

This coupon must be retained permanently in book for identification purposes and must be stamped to show date and Commissary at which first presented.

THE PANAMA RAILROAD COMPANY
OFFICE OF THE COMMISSIONARY
PANAMA, CANAL ZONE, PANAMA
RECEIVED
JAN 22 1911
103503 Y
103503 Y

GOOD FOR **5** CENTS
IN COMMISSARY SUPPLIES
AT ANY STORE OPERATED BY PANAMA RAIL ROAD CO.
NOT GOOD IF DETACHED 103503 Y *Geo. W. Goughals* PRESIDENT

GOOD FOR **2** CENTS
IN COMMISSARY SUPPLIES
AT ANY STORE OPERATED BY PANAMA RAIL ROAD CO.
NOT GOOD IF DETACHED 103503 Y *Geo. W. Goughals* PRESIDENT

GOOD FOR **2** CENTS
IN COMMISSARY SUPPLIES
AT ANY STORE OPERATED BY PANAMA RAIL ROAD CO.
NOT GOOD IF DETACHED 103503 Y *Geo. W. Goughals* PRESIDENT

No 103503 Y

191

RAIL ROAD COMPANY the

Dollars,

in Commissary Coupon Book

Signature of Employee.

Assigned By



GOOD FOR 2 CENTS
IN COMMISSARY SUPPLIES
AT ANY STORE OPERATED BY PANAMA RAIL ROAD CO.
NOT GOOD IF DETACHED 103503 Y *Genl. W. G. Goughals*
PRESIDENT

GOOD FOR 2 CENTS
IN COMMISSARY SUPPLIES
AT ANY STORE OPERATED BY PANAMA RAIL ROAD CO.
NOT GOOD IF DETACHED 103503 Y *Genl. W. G. Goughals*
PRESIDENT

GOOD FOR 2 CENTS
IN COMMISSARY SUPPLIES
AT ANY STORE OPERATED BY PANAMA RAIL ROAD CO.
NOT GOOD IF DETACHED 103503 Y *Genl. W. G. Goughals*
PRESIDENT

No 103503 Y

191

RAIL ROAD COMPANY the

Dollars,

in Commissary Coupon Book

Signature of Employee.

Assigned By



FORM X. 130.

DO NOT DETACH.

No 103503 Y

191

Received of the PANAMA RAIL ROAD COMPANY the

sum of Dollars,

being value of unused coupons remaining in Commissary Coupon Book
numbered as above.

Signature of Employee.

Witness

Countersigned By

INSTRUCTIONS

Commissary Coupon Books will be issued to any employee of the *Isthmian Canal Commission* who has wages due him in the current month subject to the following conditions:

1. Books will not be issued to Gold Employes for more than $66\frac{2}{3}$ per cent. of their monthly salary or wage, and to Silver Employes for more than \$15.00 per month, in no case to exceed the amount earned by said employee at time of issue.

2. This book must not be honored when first presented unless it is properly signed, witnessed and validated, and contains the first and fourth issuing coupons. If these conditions are not complied with the book must be taken up and forwarded (not canceled) to the *Examiner of Accounts, Isthmian Canal Commission*, for completion.

If the book is presented by other than the person to whom issued it will be confiscated, and forwarded to the *Examiner of Accounts, Isthmian Canal Commission*.

Parties issuing books will be held personally responsible for any loss resulting from an improper issue of, or accounting for Commissary Coupon Books.

If this book is lost immediate notice should be given to the *Subsistence Officer*, and *Local Auditor* of the Panama Rail Road Co., but it is understood that neither the *Isthmian Canal Commission* nor the Panama Rail Road Company will not be responsible or reimburse the owner for the value of such unused coupons if book is not recovered.



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April 25

1st edition

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April 25
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Boxes sent to Washington

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Box 1. Sent by Burck to Dep't Agr. S. Mr. Sasser

Boxes 2-9 " " " to Dr. Dyar

- 1) Box 10 Sent by S. to Howard, Feb. 2, 1911, containing 4 match boxes, 1 paper package with Pygidial galls and some loose cotton bolls showing work of *R. Pyralis* moth.
- 2) Box 11. Sent by S. to Howard, Feb. 2, 1911 containing 9 pill boxes with misc. insects, mounted by H. S. B.
- 3) Box 12. Sent by S. to Howard, Feb. 2, 1911, containing many pill boxes with miscellaneous insects, mostly collected at Paraiso.
- 4) Box 14. Sent by S. to Howard, Feb. 12 Containing some alcoholic specimens
- 5) Box 15 Sent by S. to Howard Feb 12 Containing pill boxes with insects collected up to date.
- 6) Box 23 Sent by S. to Howard, Feb. 24th Contains 21 pill boxes of insects. Mounted by H. S. B.
- 7) Box 24 Sent to Howard by S. Feb. March 11, 1911. Contains many pill boxes
- 8) Box 25 Sent to Howard by S. March 13, 1911 Contains biological material mostly alcoholic specimens. Wooden box.
- 9) Box 26 Sent to Howard by S. March 13, 1911. Contains 4 pill boxes, 3 match boxes, 3 envelopes.
- 10) Box 27 Sent to Howard by S. March 13, 1911. Contains loose orange leaves from Paraiso and twig of *Leguminosae* with scale insects. ^{from Porto Bello}

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Box 28 (Scale insects, probably *Lecanium vigrum*); larger wooden box sent to Dr. Howard by S. from Paraiso March 16th 1911

Box 29 Small wooden box containing 14 pill boxes with ^{very} miscell. insects mostly from Paraiso, I.C.J. Sent to Dr. Howard by S. March 24, 1911

Box 30 Small wooden box containing 13 pill boxes with of miscell. insects; 2 pill boxes with 1 *Attalea* flowers (the smaller insects on them still alive) 1 pill box with a mass of *Microgaster* cocoons (commercial value at Panama about 50 centesimos) 1, the box with a *Guava* leaf - pupae of an ?? *Aleyrodes* on a *Guava* leaf, Corozal, March 22, 1911. Sent to Dr. Howard by S. March 24th 1911

Package 31. ^{Rough bundle} Wrapped in paper containing an *Acacia* pod from ^{Sent to Dr. Howard by S. March 24, 1911. (in two parts)} Old Panama being the food-plant of a large *Bruchus*. These ^{*Carya grandis* fruit} are plenty of specimens of this *Bruchus* is one of the pill boxes in Box 29. The *Bruchus* commenced to emerge at Paraiso from the middle of March.

Package 32 Rough bundle in paper. Same as No. 31. Sent to Dr. Howard by S. March 24, 1911.

Package 33 sent to Dr. Howard by S. Contains some pinned specimens mostly *Lepidoptera*. Larger wooden box enclosing a pasteboard box. List of specimens sent along. Paraiso March 25, 1911.

Package 34 sent to Dr. Howard. Smaller wooden box containing a tin box with 2 leaves of a vine from the Hill plantation

at Paraiso and infested with an *Aleyrodes* (l.p. and c.). Collected March 24th and mailed March 25th.

Package 35 Pods of vine, ^{*Dioclea guianensis*} and vial containing one *Bruchus* bred from them. March 26, 1911 Not sent

Package 36 Pods of vine (small blue flowers). March 26, 1911 - *Rhynchosia* sp. *Pittier* det. April 1911

Package 37 Pods from small tree (Hill plantation) March 26, 1911 *Bauhinia* sp. *Pittier* name

Package 38 Scales on Orchid from Gorgona April 1st, 1911. The Orchid belongs to genus *Maxillaria*

Package 39 14 Pill-boxes with insects all in a small wooden box. April 3, 1911.

Package 40 ^{*Bixa orellana*} Rough nuts of a probably cultivated tree; enclosing small vial with the *Bruchus* inhabiting the seeds. April 3, 1911

Package 41 ^{Two plants confused, male with 15 large seeds; large one = *Commersonia* sp.} This is a duplication of Package 35. April 3, 1911

Package 42 April 10, 1911. Small wooden box with 14 pill boxes of miscell. insects, and with 2 small vials with a few very minute insects.

Package 43 April 10th, 1911. This is a re-duplication of package no. 35. Pods of a vine [food plant of beautiful *Bruchus* ^{Nothing bred out of them}]

Package 44 April 10th 1911. Parts of a fruit from ^{*Persea* sp.} Volcano Chiriqui, 2100 metres. given me by Dr. H. Pittier; also small vial containing a *Scolytid* boring in them.

May 2nd

Package 44. - Small wooden box containing 11 pill boxes of miscellaneous insects collected along the Canal zone; also 2 small vials with a few very minute specimens (the vials being duly labeled); also (to fill up) a land shell from Porto Bello, found about 200 feet above salt water.

Package 45 - Cigar box. 1) Loose in box: Pods of a tree (at present neither leaves nor flowers on the tree) common in the suburbs of Panama; if active the pods should harbour a Bruchus though I failed to see evidence of it 2) Small paste board box with some pods of one of the "Pseudomyrma" Acacia trees ^(small vial with 3) also some specimens of the Bruchus inhabiting the pods 3) Match box with a few large *Leptocryptus* insects.

Package 45. May 2nd Section of fig tree
" 46 " " " " same fig tree

" 47 " " " of another fig tree.

Package 48 " " Contains: Four plants of Bruchus Package loosely wrapped in paper (duplicate of package 36) with small vial containing Bruchus bred therefrom

~~Package loosely wrapped in paper~~

" " 2 Match boxes " Pods of "Pseudomyrma Acacia" from Corozal with small vial of Bruchus bred therefrom

April 25

Hemalidium

Aulonium

near Hypophloeus

Acutus

Lamprophloeus

Scolypids

Eudomyzidae

Lysophilus 2

Baridid

Belotus

Elate

Ichneumon

Package 50 Sweepings from electric light globes at Ancon

Package 49 Scale Insect on *Laurus* (or *Persea*?)

Package 48

2 Match boxes Pods of the "Pseudomyrma Acacia" samples of the Bruchus bred from them. Collected at Corozal, bred during April.

Package loosely wrapped in paper. Box, duplicate of my package No. ; also small vial with Bruchus bred from them

Panama, April 1811

Pill box, duly labeled, containing pods of a leguminous tree also small vial with the Bruchus bred therefrom

Package No 47 Scale Insect on ? *Laurus* sp

Packages 45-46 Section of a felled fig tree

47 Section of a felled tree as Nos 45-46 probably the same *Persea*

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April 25

Hemalidium

Aulonium

near Hypophloeus

Acutus

Laminophloeus

Scolypids

Endomychids

Xyleophilus 2

Baridius

Belotus

Elatas

Ichneumon

Package 50 Sweepings from electric light globe at Anson

Package 49 Scale Insect on *Launus* (or *Persea*?)

Package 48

2 Match boxes Peds of the "Pseudomyrma Anura"
samples of the *Bruchus* bred from them. Collected at
with small
Corozal, bred during April.

Package loosely wrapped in paper. Beetles, duplicate of by package
no. ; also small vial with ^{the} *Bruchus* bred from them.

Parasit, April 1911

Bill box, duly labeled, containing seeds of a Leguminosae also
small vial with ^{the} *Bruchus* bred from them.

Package No 47 Scale Insect on ? *Launus* sp

Packages 45-46 Sections of a felled fig tree

47 Section of a felled tree probably the same tree
as Nos 45-46

Pack. 51. 13 pill boxes

May 2nd

Package 44. - Small wooden box containing 11 pill boxes of miscellaneous insects collected along the Canal zone; also 2 small vials with a few very minute specimens (the vials being duly labeled); also (to fill up) a land shell from Porto Bello, found about 200 feet above salt water.

Package 45 - Cigar box. 1) Loose in box: Pods of a tree (at present neither leaves nor flowers on the tree) common in the suburbs of Panama; if native the pods should harbour a Bruchus though I failed to see evidence of it. 2) Small paste board box with some pods of one of the "Pseudomyrmica" Acacia trees ^(small vial with 3) also some specimens of the Bruchus inhabiting the pods. 3) Match box with a few large hemipterous insects.

Package 45. May 2nd Section of fig tree

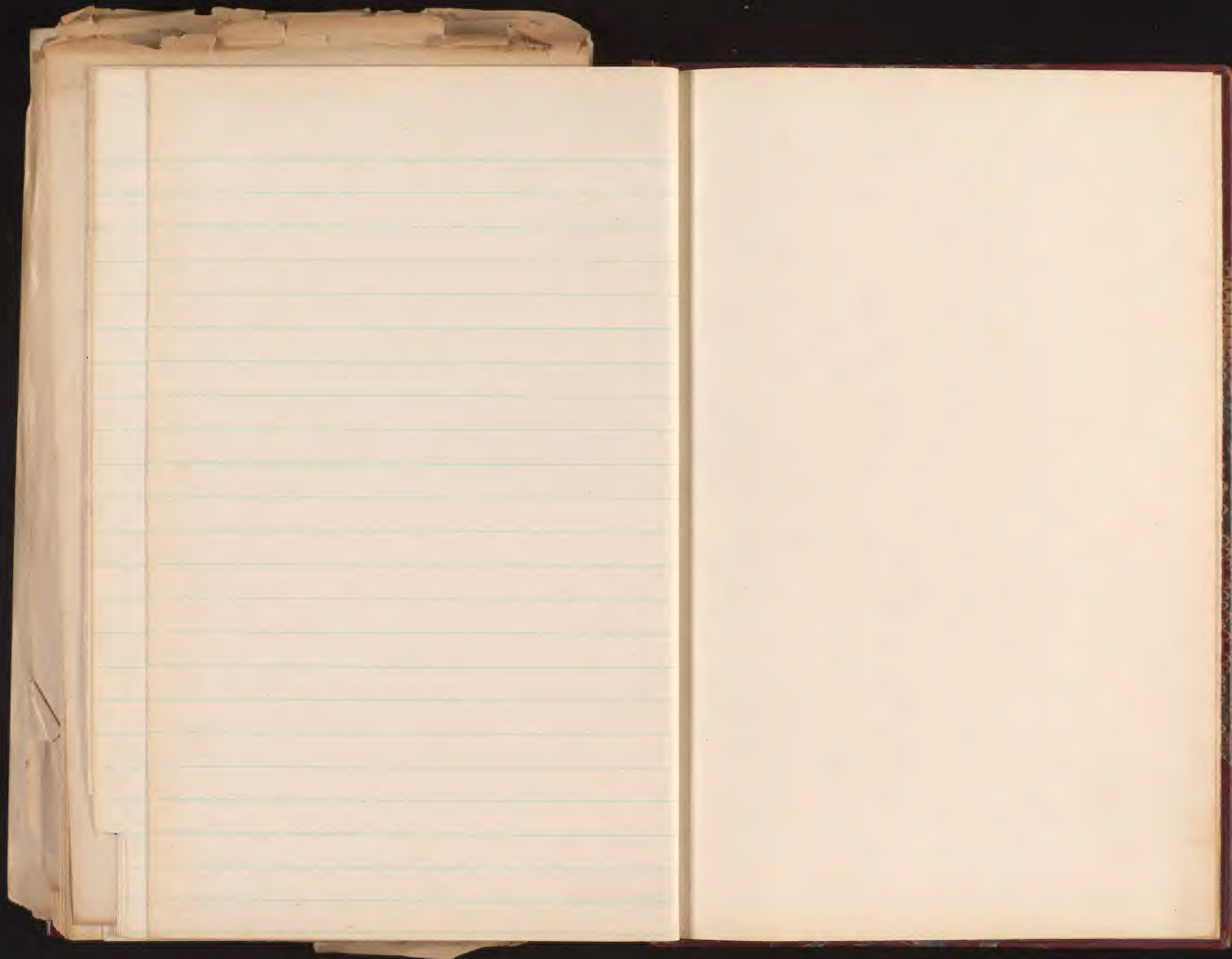
" 46 " " " " same fig tree

" 47 " " " of another fig tree.

Package 48 " " Contains: Four plants of Bruchus Package loosely wrapped in paper (Duplicate of package 36) with small vial containing Bruchus bred therefrom

Package loosely wrapped in paper

" " 2 Match boxes " Pods of "Pseudomyrmica Acacia" from Corozal with small vial of Bruchus bred therefrom





(M)

U. S. Department of Agriculture

MEMORANDUM
OF
TRAVELING EXPENSES

From *Jan. 3rd*, 19*11*
To *Feb 4*, 19*11*

Use this Memorandum; it will assist
you in making up your account.
Retain for future reference. : : : :

8-222

U. S. Department of Agriculture

MEMORANDUM
OF
TRAVELING EXPENSES

From *Jan. 3rd* _____, 19*11*

To *Febr 4* _____, 19*11*

Use this Memorandum; it will assist
you in making up your account.
Retain for future reference. : : : :

SUGGESTIONS TO TRAVELERS.

Don't exceed \$5.00 a day for meals, lodging, bath, and waiter fees, the latter not to exceed 30 cents.

Don't exceed 25 cents a day for porter fees on sleeping cars.

Don't exceed 10 cents for porter fees on parlor or chair cars.

Don't exceed \$1.25 a week for laundry; 20 cents for each additional day. Don't bring forward charges for laundry from previous account.

Don't exceed 10 cents for porter fees at stations or hotels.

Don't charge for hotel porter except on arrival and departure.

Don't exceed 10 cents for checking personal baggage.

Don't exceed 50 cents for transfer of self and 50 cents for transfer of baggage between hotels and stations.

Don't purchase railroad tickets when transportation requests can be used, unless distance is less than 100 miles. A charge for cash railroad or Pullman fare must show starting point and destination.

Don't incur ANY expense not covered by letter of authority.

Subvouchers must be taken for lodging, special transportation, personal services, express and freight shipments, and all purchases in excess of \$1.50.

Subvouchers for express shipments must show weight and contents of each shipment.

The signature to a receipt must agree with name at top of subvoucher. In case of an incorporated or nonincorporated company, the full name and title of signer must be given.

Render accounts once a month; include all expenses incurred during the month; enter items in chronological order.

Always state date and hour of departure and arrival.

Give initials of railroad when cash fare is paid.

Always state time, distance, terminal points, and rate when stage, carriage, or other special transportation is used.

Enter waiter tips and street-car fares each day.

Designate meals on trains as "en route;" the point at which any other meal, not included in hotel subvouchers, is taken, must be shown.

Explain any apparent duplication of expense or any unusual expenditure.

A. ZAPPONE,

Chief, Division of Accounts, and Disbursing Clerk.

8-829

To June 30, 19.....

	Dollars.	Cents.
Breakfast		
Dinner		
Supper		
Lodging	70	00
Pullman porter	7	50
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
5.65 to 4.4	5	65
2.00 Sleeping Car	2	00
Transfer of baggage	1	50

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Jan 4

1911

	Dollars.	Cents.
Breakfast		65
Dinner		60
Supper		
Lodging		
Pullman porter		25
Waiter fees		
Hotel porter		
Station porter		
Checking baggage 2 steamer	1	80
self 2 steamer		
	2	80
	3	10

8-829

Colon, Jan 11

1911

	Dollars.	Cents.
Breakfast		
Dinner		
Supper		
Lodging Steamer 3 meals	5	00
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage 1 steamer	1	00
Breakfast		75
Lunch, Dinner		75
Supper	1	00
	1	00
	9	50
Bedding, soap, etc.	3	00
Cashier Colon		00
" " Panama		00

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8 14 10

Amesbury Jan 12, 1911

	Dollars.	Cents.
Breakfast	1	00
Dinner	1	25
Supper	1	50
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Carriage	1	00

\$ 4.75

Amesbury Jan 13, 1911

	Dollars.	Cents.
Breakfast		75
Dinner		75
Supper		75
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Carriage		50

\$ 2.75

Aurora Jan 14, 19*01*

	Dollars.	Cents.
Breakfast -----		75
Dinner -----		75
Supper -----		75
Lodging -----		
Pullman porter -----		
Waiter fees -----		
Hotel porter -----		
Station porter -----		
Checking baggage, <i>Aurora</i>		50
<i>Transfer " Barois</i>		25
		<u>3.00</u>
<i>Laundry</i>		50

\$ 3.00
50

\$ 3.50

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Jan 15, 19*01*

<i>Paris</i>	Dollars.	Cents.
Breakfast -----	50	75 50
Dinner -----		75
Supper -----		75
Lodging -----		
Pullman porter -----		
Waiter fees -----		
Hotel porter -----		
Station porter -----		
Checking baggage -----		
	\$ 2.00	

John Burk \$ 2.50

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19

[illegible]

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Paraiso Jan. 17

19

[illegible]

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Paid Jan. 16 _____, 19__

19

	Dollars.	Cents.
Breakfast -----		
Dinner -----	2	00
Supper -----		
Lodging -----		
Pullman porter -----		
Waiter fees -----		
Hotel porter -----		
Station porter -----		
Checking baggage -----		

Jan. 27 ~~I~~ Bank owns me
~~\$~~ 25 ~~I~~ gold. Squared up
 Jan. 28, 1912

Jan. 28, 1912

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Jan. 19 Pareiso and
-----, 19
Arica

19

		Dollars.	Cents.
Breakfast	} <i>Auon</i>	<i>2</i>	<i>50</i>
Dinner			
Supper			
Lodging			
Pullman porter			
Waiter fees			
Hotel porter			
Station porter			
Checking baggage			
		<i>2.</i>	<i>50</i>

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Paraiso, Jan. 20

, 1911

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	2	00

Paraiso, Jan. 21

, 1911

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Laundry	1	00
	3	00

Paraiso, Jan 22, 1911.

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	2	00

Paraiso, Jan. 23, 1911.

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	2	00

Pan. & Pan Jan. 24, 1911

	Dollars.	Cents.
Breakfast		
Dinner	2	50
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Carrriages, Paraiso		50
	3	00

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Panama and Paraiso Jan 25, 1911

	Dollars.	Cents.
Breakfast	2	50
Dinner		
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Carrriages, Panama		50
	3	00

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Jan 26

1911

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	2	00

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Paraiso, Jan. 27

1911

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	2	00

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Paraiso, Jan. 28, 1911.

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Laundry	1	00
	<hr/>	
	3	00

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Paraiso, Jan. 29, 1911.

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	<hr/>	
	2	00

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Paraiso, Jan 30, 1911

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	2	00

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Panama, Jan 31, 1911

	Dollars.	Cents.
Breakfast		
Dinner	3	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Carriage to Sabanas	4	00
Fee to house servant	1	50
	8	50

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-, 19.

	Dollars.	Cents.
Breakfast		
Dinner		
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		

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19

	Dollars.	Cents.
Breakfast		
Dinner		
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		

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Febr. 1st

1911

	Dollars.	Cents.
Breakfast <i>Subsistan, Paraiso</i>	2	00
Dinner		
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		

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Febr. 2nd 1911

1911

	Dollars.	Cents.
<i>Matach in of Chapala</i>		
Breakfast	2	25
Dinner		
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		

*Best fare Matamoros
to Alajuela and
return*

3 50

\$5.75

~~Bank notes in~~

~~\$1.80 gold~~

*Bank party
Feb. 5, 1911*

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Paris Feb 3, 1911

	Dollars.	Cents.
Breakfast		
Dinner	2	00
Supper		
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
	\$	2 00

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February 4, 1911

	Dollars.	Cents.
Breakfast	1	50
Dinner	7	00 75
Supper	1	00
Lodging		
Pullman porter		
Waiter fees		
Hotel porter		
Station porter		
Checking baggage		
Laundry	1	00
	\$	3 25

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2640 13 25/12

19

	Dollars.	Cents.
Breakfast	1	14.70
Dinner	1	9
Supper	80	80
Lodging		2.00
Pullman porter	13.55	7.15
Waiter fees	14.20	
Hotel porter	6.72	
Station porter	6.65	
Checking baggage		78
	17.80	
Hugo Kuerschner		
Hyattsville		13.15

Albert Lipper

Hugo Schulze

314 C. st nw

Meyers P.R.

Wall S.W.

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Marshall,

Crawford, J.C.

Clifton, R.B.

P.W. Havens

153 Madison Ave.

Flushing, N.Y.

